

**TABLE 1**  
**SOIL SAMPLE FIELD DATA SUMMARY TABLE**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL GAS ONSHORE, LP**

Soil Sample Location	Date	Depth (ft. bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	Submitted for Lab Analysis? (Y/N)
<b>ABOVEGROUND STORAGE TANKS SAMPLES</b>								
AST01@6"	11/18/2021	0.50	0.1	NS	NO	40.26951831	-104.7375296	Y
AST01 Drainline	11/18/2021	NA	0.1	NS	NO	40.26950631	-104.7375318	N
AST01 Base	11/18/2021	NA	0.1	NS	NO	40.269523	-104.7375104	N
AST01 Loadout	11/18/2021	NA	0.1	NS	NO	40.2695395	-104.7374818	N
<b>FLOWLINE POTHOLE SAMPLES</b>								
PH01@5'	07/29/2021	5	70.8	Stain	Odor	40.26972391	-104.7378228	Y
PH02@2.5'	07/29/2021	2.5	645.3	Stain	Odor	40.2696673	-104.7375529	Y
PH03@2.5'	07/29/2021	2.5	962.8	Stain	Odor	40.2698995	-104.7376362	Y
B01@5'	07/29/2021	5	12.8	Stain	Odor	40.26966396	-104.737641	Y
NW01@4'	07/29/2021	4	1463	Stain	Odor	40.26967592	-104.7376738	Y
NE01@4'	07/29/2021	4	1965	Stain	Odor	40.26967418	-104.7376142	Y
SE01@4'	07/29/2021	4	950.6	Stain	Odor	40.2696464	-104.7376193	Y
SW01@4'	07/29/2021	4	5.7	Stain	Odor	40.26964546	-104.7376797	Y
SW02@4'	11/23/2021	4	1.5	NS	NO	40.2696378	-104.7377468	Y
SW03@4'	11/23/2021	4	1.8	NS	NO	40.26957528	-104.7376791	Y
B02@6'	11/23/2021	6	98.1	Stain	Odor	40.26965567	-104.7377105	Y
B03@6'	11/23/2021	6	2.7	Stain	NO	40.26960403	-104.7376555	Y
B04@8'	11/23/2021	8	18.4	Stain	Odor	40.26970786	-104.7376482	Y
B05@8'	11/23/2021	8	2.5	NS	NO	40.26964763	-104.737577	Y
B06@6'	12/01/2021	6	1.7	NS	NO	40.26975569	-104.7377233	Y
B07@6'	12/01/2021	6	18.3	NS	NO	40.26960474	-104.7375272	Y
B08@6'	12/01/2021	6	1.8	NS	NO	40.26972454	-104.737772	Y
B09@6'	12/01/2021	6	1.1	NS	NO	40.2695428	-104.737593	Y
SW04@4'	12/01/2021	4	1.3	NS	NO	40.26969864	-104.7378125	Y
SW05@4'	12/01/2021	4	0.4	NS	NO	40.26952365	-104.7376236	Y
SE02@4'	12/03/2021	4	425.7	Stain	Odor	40.26948793	-104.7375342	Y
S01@4'	12/03/2021	4	5.2	NS	NO	40.26947937	-104.7375625	Y
B02@6' (Resample)	12/09/2021	6	103.3	Stain	Odor	40.26965567	-104.7377105	Y
B03@6' (Resample)	12/09/2021	6	0.0	NS	NO	40.26960403	-104.7376555	Y
B04@8' (Resample)	12/09/2021	8	47.6	Stain	Odor	40.26970786	-104.7376482	Y
B05@8' (Resample)	12/09/2021	8	20.5	Stain	Odor	40.26964763	-104.737577	Y
B10@8'	12/09/2021	8	0.8	Stain	Odor	40.26979089	-104.7376514	Y

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**KERR-MCGEE OIL GAS ONSHORE, LP**

Soil Sample Location	Date	Depth (ft. bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	Submitted for Lab Analysis? (Y/N)
<b>FLOWLINE POTHOLE SAMPLES</b>								
B11@8'	12/09/2021	8	13.9	Stain	Odor	40.2697376	-104.7375906	Y
B12@8'	12/09/2021	8	160.5	Stain	Odor	40.26967499	-104.7375327	Y
B13@8'	12/09/2021	8	2.3	NS	Odor	40.26963717	-104.7374951	Y
B14@7'	12/09/2021	7	0.0	NS	NO	40.26959453	-104.7374599	Y
NE02@4'	12/09/2021	4	1040	Stain	Odor	40.2697446	-104.7375788	Y
NE03@4'	12/09/2021	4	1986	Stain	Odor	40.26968287	-104.7375202	Y
NE04@4'	12/09/2021	4	368.4	Stain	Odor	40.26964492	-104.737483	Y
NE05@4'	12/09/2021	4	1.0	NS	NO	40.26960489	-104.7374455	Y
NE06@4'	12/09/2021	4	1844	Stain	Odor	40.26980121	-104.7376327	Y
SE03@4'	12/09/2021	4	0.2	NS	NO	40.26956268	-104.7374219	Y
SW02@4' (Resample)	12/09/2021	4	0.2	NS	NO	40.2696378	-104.7377468	Y
SW03@4' (Resample)	12/09/2021	4	0.0	NS	NO	40.26957528	-104.7376791	Y
NW02@4'	12/09/2021	4	1484	Stain	Odor	40.26982829	-104.7376826	Y
NW03@4'	12/09/2021	4	689.2	Stain	Odor	40.26981029	-104.7377083	Y
B15@10'	12/21/2021	10	0.0	NS	NO	40.26965928	-104.737715	Y
B16@10'	12/21/2021	10	5.3	NS	NO	40.26964208	-104.7375799	Y
B17@10'	12/21/2021	10	0.3	NS	NO	40.26978793	-104.737657	Y
B18@10'	12/21/2021	10	1.2	NS	NO	40.26966765	-104.7375321	Y
NW04@4'	01/10/2022	4	1104	Stain	Odor	40.26987773	-104.7376116	Y
NE07@4'	01/10/2022	4	25.6	Stain	Odor	40.26984532	-104.7375358	Y
NE08@4'	01/10/2022	4	979.9	Stain	Odor	40.26972817	-104.7374517	Y
NE09@4'	01/10/2022	4	47.1	Stain	Odor	40.26967198	-104.7374128	Y
NE10@4'	01/10/2022	4	4.8	NS	NO	40.26962726	-104.7373849	Y
B19@8'	01/10/2022	8	4.2	NS	NO	40.26982981	-104.7375612	Y
B20@8'	01/10/2022	8	3.5	NS	NO	40.26971103	-104.7374805	Y
B21@8'	01/10/2022	8	12.6	Stain	NO	40.26966175	-104.737442	Y
B22@8'	01/10/2022	8	2.7	NS	NO	40.26961842	-104.7374097	Y
SE04@4'	01/10/2022	4	1.3	NS	NO	40.26953264	-104.7373231	Y
SW06@4'	01/10/2022	4	0.8	NS	NO	40.26954185	-104.7373768	Y
B23@9'	01/12/2022	9	7.4	NS	NO	40.26966175	-104.737442	Y
NW05@4'	01/26/2022	4	0.0	NS	NO	40.26979532	-104.7377729	Y

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Soil Sample Location	Date	Depth (ft. bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	Submitted for Lab Analysis? (Y/N)
<b>FLOWLINE POTHOLE SAMPLES</b>								
NW06@4'	01/26/2022	4	0.0	NS	NO	40.26987281	-104.7376562	Y
NW07@4'	01/26/2022	4	0.2	NS	NO	40.26992967	-104.7375675	Y
NW08@4'	01/26/2022	4	114.7	Stain	Odor	40.26996411	-104.7375138	Y
NE11@4'	01/26/2022	4	207	Stain	Odor	40.26998507	-104.7374591	Y
NE12@4'	01/26/2022	4	144.6	Stain	Odor	40.26989077	-104.7373489	Y
NE13@4'	01/26/2022	4	0.0	NS	NO	40.26957454	-104.737336	Y
SE06@4'	01/26/2022	4	0.2	NS	NO	40.26952957	-104.7373271	Y
B24@9'	01/26/2022	9	0.2	NS	NO	40.2697692	-104.7377837	Y
B25@9'	01/26/2022	9	0.0	NS	NO	40.26985486	-104.7376608	Y
B26@9'	01/26/2022	9	0.4	NS	NO	40.26988918	-104.7375504	Y
B27@9'	01/26/2022	9	0.2	NS	NO	40.26993019	-104.7374923	Y
B28@9'	01/26/2022	9	113.9	NS	Odor	40.26983892	-104.7374209	Y
B29@11'	02/08/2022	11	242.2	Stain	Odor	40.26997003	-104.7374017	Y
SW07@4'	02/10/2022	4	23.4	Stain	Odor	40.26998404	-104.7375339	Y
NW10@4'	02/10/2022	4	12.9	Stain	Odor	40.27002305	-104.7375211	Y
NW09@4'	02/10/2022	4	229.0	Stain	Odor	40.27005243	-104.7374813	Y
NE17@4'	02/10/2022	4	230.6	Stain	Odor	40.27004568	-104.737407	Y
NE16@4'	02/10/2022	4	4.3	Stain	NO	40.27002262	-104.737379	Y
NE15@4'	02/10/2022	4	193.4	Stain	Odor	40.27000165	-104.7373535	Y
NE14@4'	02/10/2022	4	9.6	Stain	Odor	40.26997695	-104.7373235	Y
SE07@4'	02/10/2022	4	7.9	Stain	Odor	40.26992927	-104.7373339	Y
NW11@4'	02/10/2022	4	7.4	NS	NO	40.26990118	-104.7373344	Y
NE18@4'	02/10/2022	4	0.7	NS	NO	40.26988923	-104.7372908	Y
SE08@4'	02/10/2022	4	0.5	NS	NO	40.26985198	-104.7372764	Y
B30@6'	02/10/2022	6	48.0	Stain	Odor	40.26994766	-104.7373585	Y
B31@9'	02/10/2022	9	0.2	NS	NO	40.2700043	-104.7374985	Y
B32@9'	02/10/2022	9	0.2	NS	NO	40.27003565	-104.7374585	Y
B33@6'	02/10/2022	6	1.7	NS	NO	40.26987856	-104.7373052	Y
B34@12'	02/10/2022	12	37.0	Stain	Odor	40.26997242	-104.737389	Y
B37@10'	02/28/2022	10	0.0	NS	NO	40.27005826	-104.7374734	Y
B36@13'	02/28/2022	13	3.6	NS	NO	40.26998626	-104.7373733	Y

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Soil Sample Location	Date	Depth (ft. bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	Submitted for Lab Analysis? (Y/N)
<b>FLOWLINE POTHOLE SAMPLES</b>								
<b>B35@7'</b>	02/28/2022	7	0.0	NS	NO	40.26995878	-104.7373379	Y
<b>NE19@4'</b>	02/28/2022	4	0.0	NS	NO	40.26999479	-104.7372878	Y
<b>NE20@4'</b>	02/28/2022	4	0.0	NS	NO	40.27001802	-104.7373154	Y
<b>NW12@4'</b>	02/28/2022	4	0.0	Stain	NO	40.27008467	-104.7375042	Y
<b>NW13@4'</b>	02/28/2022	4	5.2	NS	NO	40.27001693	-104.7373721	Y
<b>SE09@4'</b>	02/28/2022	4	0.0	NS	NO	40.26995233	-104.7372936	Y
<b>B38@11'</b>	03/14/2022	11	0	NS	NO	40.27006076	-104.7374769	Y
<b>NE19@4'</b>	06/02/2022	4	2.2	NS	NO	40.26999479	-104.7372878	Y
<b>BACKGROUND SAMPLES</b>								
<b>Native-BG01@@2.5'</b>	07/29/2021	2.5	2.2	NS	NO	40.26952788	-104.7377139	Y
<b>Native-BG01@@5'</b>	07/29/2021	5	8.3	NS	NO	40.26952788	-104.7377139	Y
<b>TB-BG01@6"</b>	11/18/2021	0.50	0	NS	NO	40.26942505	-104.7375233	Y

**Notes:**

ft. - feet  
bgs - below ground surface  
PID - Photoionization detector  
ppm - parts per million

IS - No Staining  
NO - No Odor  
Analyzed/Not Applicable



TABLE 2-1  
SOIL SAMPLE ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS  
BERIG 17-35 & UP42-35 1 O SA FACILITY  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	TPH-GRO+ (mg/kg)	TPH-DRO+ (mg/kg)	TPH-RRO+ (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4- Trimethyl benzene (mg/kg)	1,3,5- Trimethyl benzene (mg/kg)	Naphthalene (mg/kg)
Groundwater Protection Values (GPV)			500	500	500	0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038
ABOVEGROUND STORAGE TANKS SAMPLES												
AST01@6"	11/18/2021	0.50	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	NA	NA	<0.00380
FLOWLINE POTHOLE SAMPLES												
PH01@5'	07/29/2021	5	4.82	41	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
PH02@2.5'	07/29/2021	2.5	152	187	<100	<b>0.164</b>	0.00298	0.162	1.73	<b>1.41</b>	<b>1.57</b>	<b>0.0646</b>
PH03@2.5'	07/29/2021	2.5	164	232	<100	<b>0.00842</b>	<0.00200	0.228	<0.00200	<0.00200	0.00462	<b>0.114</b>
B01@5'	07/29/2021	5	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
NW01@4'	07/29/2021	4	<b>823</b>	<b>645</b>	<100	<b>0.164</b>	<b>1.95</b>	<b>1.78</b>	<b>27.8</b>	<b>5.51</b>	<b>4.64</b>	<b>0.23</b>
NE01@4'	07/29/2021	4	<b>641</b>	<b>626</b>	<100	<b>1.95</b>	0.05	<b>2.05</b>	<b>22.6</b>	<b>6.2</b>	<b>5.24</b>	<b>0.111</b>
SE01@4'	07/29/2021	4	<b>756</b>	495	<100	<b>2.22</b>	<b>14.7</b>	<b>1.81</b>	<b>25.9</b>	<b>4.3</b>	<b>3.66</b>	<b>0.0716</b>
SW01@4'	07/29/2021	4	<0.200	<25.0	<100	<b>0.00404</b>	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
SW02@4'	11/23/2021	4	NA	NA	NA	<0.00200	NA	NA	NA	NA	NA	NA
SW03@4'	11/23/2021	4	NA	NA	NA	<0.00200	NA	NA	NA	NA	NA	NA
B02@6'	11/23/2021	6	5.31	27.2	<100	0.00252	<0.00200	0.00296	0.0439	<b>0.0154</b>	<b>0.0229</b>	NA
B03@6'	11/23/2021	6	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	0.0036	<0.00200	<0.00200	NA
B04@8'	11/23/2021	8	0.436	<25.0	<100	<0.00200	<0.00200	<0.00200	0.0157	0.0055	0.00518	NA
B05@8'	11/23/2021	8	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	NA
B06@6'	12/01/2021	6	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
B07@6'	12/01/2021	6	0.371	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
B08@6'	12/01/2021	6	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
B09@6'	12/01/2021	6	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
SW04@4'	12/01/2021	4	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.000556
SW05@4'	12/01/2021	4	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
SE02@4'	12/03/2021	4	0.27	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	NA	NA	<0.00380
S01@4'	12/03/2021	4	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	NA	NA	<0.00380
B02@6'	12/09/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.00679</b>
B03@6'	12/09/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067
B04@8'	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000579
B05@8'	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00296
B10@8'	12/09/2021	8	1.18	<25.0	<100	<0.00200	NA	0.00992	<0.00200	<b>0.0138</b>	<0.00200	<0.00067
B11@8'	12/09/2021	8	<0.200	<25.0	<100	0.00216	NA	<0.00200	0.00996	<0.00200	<0.00200	0.00131
B12@8'	12/09/2021	8	2.47	<25.0	<100	<b>0.0164</b>	NA	0.0204	0.308	<b>0.0636</b>	<b>0.052</b>	<b>0.0123</b>
B13@8'	12/09/2021	8	0.983	<25.0	<100	<0.00200	NA	<0.00200	0.00532	0.00306	<0.00200	<0.00067
B14@7'	12/09/2021	7	<0.200	<25.0	<100	<0.00200	NA	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067

**TABLE 2-1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**VOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	TPH-GRO+ (mg/kg)	TPH-DRO+ (mg/kg)	TPH-RRO+ (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4- Trimethyl benzene (mg/kg)	1,3,5- Trimethyl benzene (mg/kg)	Naphthalene (mg/kg)
Groundwater Protection Values (GPV)			500	500	500	0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038
<b>FLOWLINE POTHOLE SAMPLES</b>												
NE02@4'	12/09/2021	4	10.5	558	<100	3.03	NA	20.3	313	59.7	53.7	0.301
NE03@4'	12/09/2021	4	1.44	42.6	<100	<0.00200	NA	0.0413	17.5	6.44	3.17	0.0449
NE04@4'	12/09/2021	4	0.221	28.8	<100	<0.00200	NA	<0.00200	<0.00200	<0.00200	<0.00200	<0.00335
NE05@4'	12/09/2021	4	<0.200	<25.0	<100	<0.00200	NA	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
NE06@4'	12/09/2021	4	82.4	183	<100	0.0249	NA	0.355	0.00916	0.207	<0.00200	0.0166
SE03@4'	12/09/2021	4	2.55	<25.0	<100	0.00408	0.00416	0.00296	0.0021	0.00728	<0.00200	<0.00067
SW02@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW02@4'	12/09/2021	4	17.2	78.3	<100	<0.00200	<0.00200	0.00692	0.00328	0.0331	<0.00200	0.00643
NW03@4'	12/09/2021	4	15.7	46.9	<100	<0.00200	<0.00200	<0.00200	<0.00200	0.0247	<0.00200	<0.00067
B15@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067
B16@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B17@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	NA
B18@10'	12/21/2021	10	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	<0.00200	<0.00067
NW04@4'	01/10/2022	4	13.8	<25.0	<100	0.00272	<0.00200	0.0103	<0.00200	0.0352	<0.00200	0.00739
NE07@4'	01/10/2022	4	NA	NA	NA	0.00312	NA	NA	NA	<0.00200	NA	<0.00067
NE08@4'	01/10/2022	4	127	<25.0	<100	0.348	NA	0.16	2.75	0.981	0.872	0.00806
NE09@4'	01/10/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	<0.00200	<0.00067
NE10@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B19@8'	01/10/2022	8	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	<0.00200	<0.00067
B20@8'	01/10/2022	8	NA	NA	NA	0.0025	NA	NA	NA	<0.00200	NA	<0.00067
B21@8'	01/10/2022	8	NA	<25.0	<100	NA	NA	NA	0.0348	0.0198	0.0171	<0.00067
B22@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SE04@4'	01/10/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	NA	NA	NA
SW06@4'	01/10/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	NA	NA	NA
B23@9'	01/12/2022	9	NA	NA	NA	NA	NA	NA	NA	<0.00200	<0.00200	<0.00067
NW05@4'	01/26/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
NW06@4'	01/26/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
NW07@4'	01/26/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
NW08@4'	01/26/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	0.0192	NA	<0.00067
NE11@4'	01/26/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	0.111	NA	0.0105
NE12@4'	01/26/2022	4	NA	NA	NA	0.778	NA	NA	NA	4.25	3.84	0.0117
NE13@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2-1  
SOIL SAMPLE ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS  
BERIG 17-35 & UP42-35 1 O SA FACILITY  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	TPH-GRO+ (mg/kg)	TPH-DRO+ (mg/kg)	TPH-RRO+ (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4- Trimethyl benzene (mg/kg)	1,3,5- Trimethyl benzene (mg/kg)	Naphthalene (mg/kg)
Groundwater Protection Values (GPV)			500	500	500	0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038
FLOWLINE POTHOLE SAMPLES												
SE06@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B24@9'	01/26/2022	9	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
B25@9'	01/26/2022	9	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
B26@9'	01/26/2022	9	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
B27@9'	01/26/2022	9	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	NA	<0.00067
B28@9'	01/26/2022	9	NA	NA	NA	<0.00200	NA	NA	NA	0.025	0.169	0.00152
B29@11'	02/08/2022	11	NA	NA	NA	NA	NA	NA	NA	0.0341	0.0309	NA
SW07@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	NA
NW10@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	NA
NW09@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	0.0668	NA	<0.00067
NE17@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	0.0054	NA	<0.00067
NE16@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	<0.00067
NE15@4'	02/10/2022	4	NA	NA	NA	0.217	NA	NA	NA	5.11	4.68	0.0625
NE14@4'	02/10/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	0.0117	0.0187	<0.00067
SE07@4'	02/10/2022	4	NA	NA	NA	<0.00200	NA	NA	NA	<0.00200	<0.00200	<0.00067
NW11@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE18@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SE08@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B30@6'	02/10/2022	6	NA	NA	NA	<0.00200	NA	NA	NA	0.00328	0.0344	<0.00067
B31@9'	02/10/2022	9	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	NA
B32@9'	02/10/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B33@6'	02/10/2022	6	NA	NA	NA	NA	NA	NA	NA	<0.00200	<0.00200	NA
B34@12'	02/10/2022	12	NA	NA	NA	NA	NA	NA	NA	0.00386	0.0125	NA
B37@10'	03/07/2022	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B36@13'	02/28/2022	13	NA	NA	NA	NA	NA	NA	NA	NA	0.00338	NA
B35@7'	02/28/2022	7	NA	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA
NE19@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	NA
NE20@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	<0.00200	<0.00067
NW12@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA	NA
NW13@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	<0.00200	<0.00067
SE09@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	<0.00200	<0.00200	NA
B38@11'	03/14/2022	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE19@4'	06/02/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	<0.00200	NA

**TABLE 2-2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**POLYCYCLIC AROMATIC HYDROCARBONS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	Acenaphthene (mg/Kg)	Anthracene (mg/Kg)	Benzo (a) anthracene (mg/Kg)	Benzo (b) fluoranthene (mg/Kg)	Benzo (k) fluoranthene (mg/Kg)	Benzo (a) pyrene (mg/Kg)	Chrysene (mg/Kg)	Dibenz (a,h) anthracene (mg/Kg)	Fluoranthene (mg/Kg)	Fluorene (mg/Kg)	Indeno (1,2,3-cd) pyrene (mg/Kg)	1-Methyl naphthalene (mg/Kg)	2-Methyl naphthalene (mg/Kg)	Pyrene (mg/Kg)
Groundwater Protection Values (GPV)			0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	1.3
<b>ABOVEGROUND STORAGE TANKS SAMPLES</b>																
<b>AST01@6"</b>	11/18/2021	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>FLOWLINE POTHOLE SAMPLES</b>																
<b>PH01@5'</b>	07/29/2021	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000767	<0.00067	<0.00067	<0.00067	<0.00067
<b>PH02@2.5'</b>	07/29/2021	2.5	0.0119	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000526	<0.00067	<0.00067	0.0142	<0.00067	<b>0.0809</b>	<b>0.104</b>	0.000517
<b>PH03@2.5'</b>	07/29/2021	2.5	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	0.0421	<0.00335	<b>0.204</b>	<b>0.403</b>	<0.00335
<b>B01@5'</b>	07/29/2021	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
<b>NW01@4'</b>	07/29/2021	4	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	0.00141	<0.00335	<0.00335	0.0245	<0.00335	<b>0.284</b>	<b>0.668</b>	<0.00335
<b>NE01@4'</b>	07/29/2021	4	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	0.0187	<0.00335	<b>0.13</b>	<b>0.294</b>	<0.00335
<b>SE01@4'</b>	07/29/2021	4	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	0.00974	<0.00335	<b>0.0901</b>	<b>0.215</b>	<0.00335
<b>SW01@4'</b>	07/29/2021	4	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
<b>SW02@4'</b>	11/23/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>SW03@4'</b>	11/23/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>B02@6'</b>	11/23/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>B03@6'</b>	11/23/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>B04@8'</b>	11/23/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>B05@8'</b>	11/23/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>B06@6'</b>	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
<b>B07@6'</b>	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000538	0.00062	NA
<b>B08@6'</b>	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
<b>B09@6'</b>	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
<b>SW04@4'</b>	12/01/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00176	0.00204	NA
<b>SW05@4'</b>	12/01/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
<b>SE02@4'</b>	12/03/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>S01@4'</b>	12/03/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>B02@6'</b>	12/09/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.0189</b>	<b>0.0341</b>	NA
<b>B03@6'</b>	12/09/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
<b>B04@8'</b>	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000787	0.00151	NA
<b>B05@8'</b>	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.00826</b>	0.0144	NA
<b>B10@8'</b>	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	0.000429	NA
<b>B11@8'</b>	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	0.00075	NA
<b>B12@8'</b>	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.0155</b>	<b>0.032</b>	NA
<b>B13@8'</b>	12/09/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
<b>B14@7'</b>	12/09/2021	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA

**TABLE 2-2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**POLYCYCLIC AROMATIC HYDROCARBONS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	Acenaphthene (mg/Kg)	Anthracene (mg/Kg)	Benzo (a) anthracene (mg/Kg)	Benzo (b) fluoranthene (mg/Kg)	Benzo (k) fluoranthene (mg/Kg)	Benzo (a) pyrene (mg/Kg)	Chrysene (mg/Kg)	Dibenz (a,h) anthracene (mg/Kg)	Fluoranthene (mg/Kg)	Fluorene (mg/Kg)	Indeno (1,2,3-cd) pyrene (mg/Kg)	1-Methyl naphthalene (mg/Kg)	2-Methyl naphthalene (mg/Kg)	Pyrene (mg/Kg)
Groundwater Protection Values (GPV)			0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	1.3
<b>FLOWLINE POTHOLE SAMPLES</b>																
NE02@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.363	0.613	NA
NE03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0949	0.208	NA
NE04@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00335	<0.00335	NA
NE05@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NE06@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0738	0.155	NA
SE03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
SW02@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW02@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0309	0.057	NA
NW03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00775	0.0131	NA
B15@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B16@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000935	NA	NA
B17@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW04@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0283	0.0552	NA
NE07@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00136	0.00134	NA
NE08@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0147	0.0226	NA
NE09@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NE10@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B19@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B20@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B21@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B22@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SE04@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW06@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23@9'	01/12/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW05@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW06@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW07@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW08@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00348	0.0025	NA
NE11@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0378	0.088	NA
NE12@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0152	0.0243	NA
NE13@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 2-2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**POLYCYCLIC AROMATIC HYDROCARBONS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	Acenaphthene (mg/Kg)	Anthracene (mg/Kg)	Benzo (a) anthracene (mg/Kg)	Benzo (b) fluoranthene (mg/Kg)	Benzo (k) fluoranthene (mg/Kg)	Benzo (a) pyrene (mg/Kg)	Chrysene (mg/Kg)	Dibenz (a,h) anthracene (mg/Kg)	Fluoranthene (mg/Kg)	Fluorene (mg/Kg)	Indeno (1,2,3-cd) pyrene (mg/Kg)	1-Methyl naphthalene (mg/Kg)	2-Methyl naphthalene (mg/Kg)	Pyrene (mg/Kg)
Groundwater Protection Values (GPV)			0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	1.3
<b>FLOWLINE POTHOLE SAMPLES</b>																
SE06@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B24@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B25@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B26@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B27@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
B28@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00298	0.00474	NA
B29@11'	02/08/2022	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW07@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW10@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW09@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000618	0.00102	NA
NE17@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00166	0.0015	NA
NE16@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NE15@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.108</b>	<b>0.063</b>	NA
NE14@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000719	0.00165	NA
SE07@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW11@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE18@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SE08@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B30@6'	02/10/2022	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	0.000697	NA
B31@9'	02/10/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B32@9'	02/10/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B33@6'	02/10/2022	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B34@12'	02/10/2022	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B37@10'	03/07/2022	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B36@13'	02/28/2022	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B35@7'	02/28/2022	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE19@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE20@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
NW12@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW13@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00067	<0.00067	NA
SE09@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38@11'	03/14/2022	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE19@4'	06/02/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 2-3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**SOIL SUITABILITY FOR RECLAMATION**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	EC (mmhos/cm)	SAR	pH	Boron (mg/L)
Groundwater Protection Values (GPV)			4	6	6-8.3	2
<b>ABOVEGROUND STORAGE TANKS SAMPLES</b>						
AST01@6"	11/18/2021	0.50	1.38	0.214	6.99	0.198
<b>FLOWLINE POTHOLE SAMPLES</b>						
PH01@5'	07/29/2021	5	0.832	2.31	6.97	0.24
PH02@2.5'	07/29/2021	2.5	0.592	4.21	7.53	1.82
PH03@2.5'	07/29/2021	2.5	0.611	2.51	7.88	0.28
B01@5'	07/29/2021	5	0.603	2.69	7.32	<0.200
NW01@4'	07/29/2021	4	1.02	2.77	7.17	<0.200
NE01@4'	07/29/2021	4	0.566	3.96	7.13	<0.200
SE01@4'	07/29/2021	4	0.656	4.09	7.50	0.198
SW01@4'	07/29/2021	4	0.62	3.59	7.65	0.258
SW02@4'	11/23/2021	4	NA	NA	NA	NA
SW03@4'	11/23/2021	4	NA	NA	NA	NA
B02@6'	11/23/2021	6	NA	NA	NA	NA
B03@6'	11/23/2021	6	NA	NA	NA	NA
B04@8'	11/23/2021	8	NA	NA	NA	NA
B05@8'	11/23/2021	8	NA	NA	NA	NA
B06@6'	12/01/2021	6	NA	NA	NA	NA
B07@6'	12/01/2021	6	NA	NA	NA	NA
B08@6'	12/01/2021	6	NA	NA	NA	NA
B09@6'	12/01/2021	6	NA	NA	NA	NA
SW04@4'	12/01/2021	4	NA	NA	NA	NA
SW05@4'	12/01/2021	4	NA	NA	NA	NA
SE02@4'	12/03/2021	4	NA	NA	NA	NA
S01@4'	12/03/2021	4	NA	NA	NA	NA
B02@6'	12/09/2021	6	NA	NA	NA	NA
B03@6'	12/09/2021	6	NA	NA	NA	NA
B04@8'	12/09/2021	8	NA	NA	NA	NA
B05@8'	12/09/2021	8	NA	NA	NA	NA
B10@8'	12/09/2021	8	NA	NA	NA	NA
B11@8'	12/09/2021	8	NA	NA	NA	NA
B12@8'	12/09/2021	8	NA	NA	NA	NA
B13@8'	12/09/2021	8	NA	NA	NA	NA
B14@7'	12/09/2021	7	NA	NA	NA	NA
NE02@4'	12/09/2021	4	NA	NA	NA	NA
NE03@4'	12/09/2021	4	NA	NA	NA	NA
NE04@4'	12/09/2021	4	NA	NA	NA	NA
NE05@4'	12/09/2021	4	NA	NA	NA	NA
NE06@4'	12/09/2021	4	NA	NA	NA	NA
SE03@4'	12/09/2021	4	NA	NA	NA	NA



**TABLE 2-3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**SOIL SUITABILITY FOR RECLAMATION**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	EC (mmhos/cm)	SAR	pH	Boron (mg/L)
Groundwater Protection Values (GPV)			4	6	6-8.3	2
<b>FLOWLINE POTHOLE SAMPLES</b>						
SW02@4'	12/09/2021	4	NA	NA	NA	NA
SW03@4'	12/09/2021	4	NA	NA	NA	NA
NW02@4'	12/09/2021	4	NA	NA	NA	NA
NW03@4'	12/09/2021	4	NA	NA	NA	NA
B15@10'	12/21/2021	10	NA	NA	NA	NA
B16@10'	12/21/2021	10	NA	NA	NA	NA
B17@10'	12/21/2021	10	NA	NA	NA	NA
B18@10'	12/21/2021	10	NA	NA	NA	NA
NW04@4'	01/10/2022	4	NA	NA	NA	NA
NE07@4'	01/10/2022	4	NA	NA	NA	NA
NE08@4'	01/10/2022	4	NA	NA	NA	NA
NE09@4'	01/10/2022	4	NA	NA	NA	NA
NE10@4'	01/10/2022	4	NA	NA	NA	NA
B19@8'	01/10/2022	8	NA	NA	NA	NA
B20@8'	01/10/2022	8	NA	NA	NA	NA
B21@8'	01/10/2022	8	NA	NA	NA	NA
B22@8'	01/10/2022	8	NA	NA	NA	NA
SE04@4'	01/10/2022	4	NA	NA	NA	NA
SW06@4'	01/10/2022	4	NA	NA	NA	NA
B23@9'	01/12/2022	9	NA	NA	NA	NA
NW05@4'	01/26/2022	4	NA	NA	NA	NA
NW06@4'	01/26/2022	4	NA	NA	NA	NA
NW07@4'	01/26/2022	4	NA	NA	NA	NA
NW08@4'	01/26/2022	4	NA	NA	NA	NA
NE11@4'	01/26/2022	4	NA	NA	NA	NA
NE12@4'	01/26/2022	4	NA	NA	NA	NA
NE13@4'	01/26/2022	4	NA	NA	NA	NA
SE06@4'	01/26/2022	4	NA	NA	NA	NA
B24@9'	01/26/2022	9	NA	NA	NA	NA
B25@9'	01/26/2022	9	NA	NA	NA	NA
B26@9'	01/26/2022	9	NA	NA	NA	NA
B27@9'	01/26/2022	9	NA	NA	NA	NA
B28@9'	01/26/2022	9	NA	NA	NA	NA
B29@11'	02/08/2022	11	NA	NA	NA	NA
SW07@4'	02/10/2022	4	NA	NA	NA	NA
NW10@4'	02/10/2022	4	NA	NA	NA	NA
NW09@4'	02/10/2022	4	NA	NA	NA	NA
NE17@4'	02/10/2022	4	NA	NA	NA	NA
NE16@4'	02/10/2022	4	NA	NA	NA	NA



**TABLE 2-3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**SOIL SUITABILITY FOR RECLAMATION**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	EC (mmhos/cm)	SAR	pH	Boron (mg/L)
Groundwater Protection Values (GPV)			4	6	6-8.3	2
<b>FLOWLINE POTHOLE SAMPLES</b>						
NE15@4'	02/10/2022	4	NA	NA	NA	NA
NE14@4'	02/10/2022	4	NA	NA	NA	NA
SE07@4'	02/10/2022	4	NA	NA	NA	NA
NW11@4'	02/10/2022	4	NA	NA	NA	NA
NE18@4'	02/10/2022	4	NA	NA	NA	NA
SE08@4'	02/10/2022	4	NA	NA	NA	NA
B30@6'	02/10/2022	6	NA	NA	NA	NA
B31@9'	02/10/2022	9	NA	NA	NA	NA
B32@9'	02/10/2022	9	NA	NA	NA	NA
B33@6'	02/10/2022	6	NA	NA	NA	NA
B34@12'	02/10/2022	12	NA	NA	NA	NA
B37@10'	03/07/2022	10	NA	NA	NA	NA
B36@13'	02/28/2022	13	NA	NA	NA	NA
B35@7'	02/28/2022	7	NA	NA	NA	NA
NE19@4'	02/28/2022	4	NA	NA	NA	NA
NE20@4'	02/28/2022	4	NA	NA	NA	NA
NW12@4'	02/28/2022	4	NA	NA	NA	NA
NW13@4'	02/28/2022	4	NA	NA	NA	NA
SE09@4'	02/28/2022	4	NA	NA	NA	NA
B38@11'	03/14/2022	11	NA	NA	NA	NA
NE19@4'	06/02/2022	4	NA	NA	NA	NA
<b>BACKGROUND SAMPLES</b>						
Native-BG01@@2.5'	07/29/2021	2.5	0.703	2.38	7.41	<0.200
Native-BG01@@5'	07/29/2021	5	0.703	2.52	7.30	0.198
TB-BG01@6"	11/18/2021	0.50	0.0925	0.249	7.13	<0.200

TABLE 2-4  
SOIL SAMPLE ANALYTICAL RESULTS  
METALS  
BERIG 17-35 & UP42-35 1 O SA FACILITY  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Groundwater Protection Values (GPV)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<b>ABOVEGROUND STORAGE TANKS SAMPLES</b>												
AST01@6"	11/18/2021	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>FLOWLINE POTHOLE SAMPLES</b>												
PH01@5'	07/29/2021	5	1.36*	78.6	0.157	<0.5	5.81	6.39	8.83	<b>0.286</b>	0.0222	33.3
PH02@2.5'	07/29/2021	2.5	1.31*	47.5	0.0512	<0.5	4.91	5.17	6.19	<b>0.307</b>	0.0163	21.3
PH03@2.5'	07/29/2021	2.5	1.99*	<b>85.3</b>	0.0995	<0.5	6.71	6.68	6.4	<b>0.293</b>	0.018	28.2
B01@5'	07/29/2021	5	1.38*	61.8	0.0784	<0.5	7.95	6.87	8.59	<b>0.307</b>	0.0246	31.9
NW01@4'	07/29/2021	4	1.17*	61.6	0.0604	<0.5	4.44	4.86	5.5	<b>0.293</b>	0.0244	23.2
NE01@4'	07/29/2021	4	1.67*	<b>113</b>	0.12	<0.5	8.1	8.88	11.6	<b>0.435</b>	0.0426	43.4
SE01@4'	07/29/2021	4	0.875*	65.4	0.065	<0.5	3.77	5.03	5.35	<b>0.278</b>	0.017	19.8
SW01@4'	07/29/2021	4	1.3*	80.4	0.107	<0.5	6.59	7.28	6.85	<b>0.479</b>	0.0221	37.5
SW02@4'	11/23/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW03@4'	11/23/2021	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B02@6'	11/23/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B03@6'	11/23/2021	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B04@8'	11/23/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B05@8'	11/23/2021	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B06@6'	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
B07@6'	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
B08@6'	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
B09@6'	12/01/2021	6	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
SW04@4'	12/01/2021	4	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
SW05@4'	12/01/2021	4	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
SE02@4'	12/03/2021	4	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
S01@4'	12/03/2021	4	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
B02@6'	12/09/2021	6	NA	50.3	NA	NA	NA	NA	NA	<0.25	NA	NA
B03@6'	12/09/2021	6	NA	44.7	NA	NA	NA	NA	NA	<0.25	NA	NA
B04@8'	12/09/2021	8	NA	55.6	NA	NA	NA	NA	NA	0.162	NA	NA
B05@8'	12/09/2021	8	NA	49.3	NA	NA	NA	NA	NA	0.165	NA	NA
B10@8'	12/09/2021	8	NA	69.2	NA	NA	NA	NA	NA	0.184	NA	NA
B11@8'	12/09/2021	8	NA	61.5	NA	NA	NA	NA	NA	<0.25	NA	NA
B12@8'	12/09/2021	8	NA	60.7	NA	NA	NA	NA	NA	0.181	NA	NA
B13@8'	12/09/2021	8	NA	63.5	NA	NA	NA	NA	NA	<0.25	NA	NA
B14@7'	12/09/2021	7	NA	75.1	NA	NA	NA	NA	NA	<0.25	NA	NA

**TABLE 2-4**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**METALS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Groundwater Protection Values (GPV)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<b>FLOWLINE POTHOLE SAMPLES</b>												
NE02@4'	12/09/2021	4	NA	68.3	NA	NA	NA	NA	NA	0.147	NA	NA
NE03@4'	12/09/2021	4	NA	78.6	NA	NA	NA	NA	NA	<0.25	NA	NA
NE04@4'	12/09/2021	4	NA	84	NA	NA	NA	NA	NA	<0.25	NA	NA
NE05@4'	12/09/2021	4	NA	72.2	NA	NA	NA	NA	NA	0.188	NA	NA
NE06@4'	12/09/2021	4	NA	49.3	NA	NA	NA	NA	NA	0.141	NA	NA
SE03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
SW02@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	0.122	NA	NA
SW03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	0.193	NA	NA
NW02@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	NA
NW03@4'	12/09/2021	4	NA	NA	NA	NA	NA	NA	NA	0.126	NA	NA
B15@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B16@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B17@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18@10'	12/21/2021	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW04@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	0.146	NA	NA
NE07@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE08@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE09@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE10@4'	01/10/2022	4	NA	94	NA	NA	NA	NA	NA	NA	NA	NA
B19@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B20@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B21@8'	01/10/2022	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B22@8'	01/10/2022	8	NA	59.9	NA	NA	NA	NA	NA	NA	NA	NA
SE04@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW06@4'	01/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23@9'	01/12/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW05@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW06@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW07@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW08@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE11@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE12@4'	01/26/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE13@4'	01/26/2022	4	NA	93.3	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 2-4**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**METALS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Groundwater Protection Values (GPV)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<b>FLOWLINE POTHOLE SAMPLES</b>												
SE06@4'	01/26/2022	4	NA	68	NA	NA	NA	NA	NA	NA	NA	NA
B24@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B25@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B26@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B27@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B28@9'	01/26/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B29@11'	02/08/2022	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW07@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW10@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW09@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE17@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE16@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE15@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE14@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SE07@4'	02/10/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW11@4'	02/10/2022	4	NA	61.5	NA	NA	NA	NA	NA	NA	NA	NA
NE18@4'	02/10/2022	4	NA	62.3	NA	NA	NA	NA	NA	NA	NA	NA
SE08@4'	02/10/2022	4	NA	42.1	NA	NA	NA	NA	NA	NA	NA	NA
B30@6'	02/10/2022	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B31@9'	02/10/2022	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B32@9'	02/10/2022	9	NA	98.9	NA	NA	NA	NA	NA	NA	NA	NA
B33@6'	02/10/2022	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B34@12'	02/10/2022	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B37@10'	03/07/2022	10	NA	282	NA	NA	NA	NA	NA	NA	NA	NA
B36@13'	02/28/2022	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B35@7'	02/28/2022	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE19@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE20@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW12@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW13@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SE09@4'	02/28/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38@11'	03/14/2022	11	NA	65.2	NA	NA	NA	NA	NA	NA	NA	NA
NE19@4'	06/02/2022	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2-4  
SOIL SAMPLE ANALYTICAL RESULTS  
METALS  
BERIG 17-35 & UP42-35 1 O SA FACILITY  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Groundwater Protection Values (GPV)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<b>BACKGROUND SAMPLES</b>												
<b>Native-BG01@@2.5'</b>	07/29/2021	2.5	3.52	16.5	0.25	<0.5	2.1	4.39	5.59	0.212	0.25	21.4
<b>Native-BG01@@5'</b>	07/29/2021	5	0.966	76.6	0.0774	<0.5	3.65	4.44	6.11	0.218	0.0167	19.6
<b>TB-BG01@6"</b>	11/18/2021	0.50	0.835	30.7	0.168	<0.514	6.96	10.7	3.06	0.25	0.0803	28.8

TABLE 2-5  
SOIL SAMPLE ANALYTICAL RESULTS  
NOTES  
BERIG 17-35 & UP42-35 1 O SA FACILITY  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

**Notes:**

GPV - Groundwater Protection Values (mg/kg)

TPH - Total Petroleum Hydrocarbons

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

RRO - Residual Range Organics

+ Allowable level for TPH is 500 mg/kg for combined GRO, DRO, ORO

EC - Electrical Conductivity

SAR - Sodium Adsorption Ratio

mmhos/cm - millimhos per centimeter

<0.00200 - less than laboratory reporting limit

NA - Not Analyzed/Not Applicable

**Bold** - exceeds Table 915-1 allowable level and background

**TABLE 3**  
**GROUNDWATER ANALYTICAL RESULTS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- trimethylbenzene (µg/L)	1,3,5- trimethylbenzene (µg/L)	Total Dissolved Solids (ug/L)	Chloride ion (ug/L)	Sulfate Ion (ug/L)	Depth to Water/ (Product Thickness) (ft bgs)
<b>COGCC Allowable Levels</b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	<b>140</b>	<b>67</b>	<b>67</b>	<b>1,500,000</b>	<b>250,000</b>	<b>445,000</b>	
GW01	7/29/2021	<b>1,480</b>	<b>3,070</b>	238	<b>4,560</b>	20.1	<b>358</b>	<b>308</b>	901,000	185,000	193,000	2.0
GW02	7/29/2021	<1.00	<1.00	11.1	<1.00	<4.00	<1.00	<1.00	660,000	114,000	161,000	2.0
GW03	7/29/2021	<b>177</b>	<4.00	49.5	305	<16.0	<b>97.0</b>	<b>68.1</b>	826,000	219,000	125,000	2.0
GW04	7/29/2021	3.32	<1.00	11.1	<1.00	4.04	<1.00	<1.00	678,000	138,000	92,300	2.0
GW-BG01	7/29/2021	NA	NA	NA	NA	NA	NA	NA	1,200,000	192,000	356,000	2.0

Notes: COGCC - Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

ft bgs - feet below ground surface

< - less than laboratory reporting limit

NA - not analyzed/not available

Excavation groundwater depth is approximate

Total dissolved solids and sulfate ion parameters based on background sample (GW-BG01) concentration x 1.25

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1 groundwater standards.

**TABLE 4**  
**SURFACE WATER ANALYTICAL RESULTS**  
**BERIG 17-35 & UP42-35 1 O SA FACILITY**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- trimethylbenzene (µg/L)	1,3,5- trimethylbenzene (µg/L)
<b>COGCC Allowable Levels</b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1400</b>	<b>140</b>	<b>67</b>	<b>67</b>
Ditch-01	8/12/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00
Ditch-02	8/12/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00
Ditch-03	8/12/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00
Ditch-04	8/12/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00
Ditch-05	8/12/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00
Ditch-06	8/12/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00
SW-01	8/12/2021	<1.00	2.57	<1.00	<1.00	<4.00	<1.00	<1.00

Notes: COGCC - Colorado Oil and Gas Conservation Commission

ft bgs - feet below ground surface

NA - not analyzed/not available

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1 groundwater standards.

µg/L - micrograms per liter

< - less than laboratory reporting limit

Excavation groundwater depth is approximate





August 11, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. July 29, 2021. This project is associated with Origins project number Y107611-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@5'	Y107611-01	Soil	July 29, 2021 15:03	07/29/2021 18:04
NW01@4'	Y107611-02	Soil	July 29, 2021 15:08	07/29/2021 18:04
NE01@4'	Y107611-03	Soil	July 29, 2021 15:13	07/29/2021 18:04
SE01@4'	Y107611-04	Soil	July 29, 2021 15:19	07/29/2021 18:04
SW01@4'	Y107611-05	Soil	July 29, 2021 15:22	07/29/2021 18:04
GW01	Y107611-06	Water	July 29, 2021 14:55	07/29/2021 18:04
PH01@5'	Y107611-07	Soil	July 29, 2021 15:40	07/29/2021 18:04
GW02	Y107611-08	Water	July 29, 2021 15:38	07/29/2021 18:04
PH02@2.5'	Y107611-09	Soil	July 29, 2021 15:50	07/29/2021 18:04
GW03	Y107611-10	Water	July 29, 2021 15:47	07/29/2021 18:04
PH03@2.5'	Y107611-11	Soil	July 29, 2021 15:09	07/29/2021 18:04
GW04	Y107611-12	Water	July 29, 2021 16:08	07/29/2021 18:04
Native-BG01@@2.5'	Y107611-13	Soil	July 29, 2021 16:25	07/29/2021 18:04
Native-BG01@@5'	Y107611-14	Soil	July 29, 2021 16:28	07/29/2021 18:04

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-BG01	Y107611-15	Water	July 29, 2021 16:37	07/29/2021 18:04

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

page 1 of 2

4107611

Client: WSP USA  
Address: 4600 W. 60th Ave. Arvada 80003

Project Manager: Brian Sulzberger  
Project Name: Berig 17-35  
Project Number: 31403177.138  
Samples Collected By: DH

Telephone Number:   
Email Address: DH

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix				Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #	Other			
Bel05'	7-29-21	1503	2	X					X			X	GW collection	1
NW0104'		1508	2						X			X		2
NE0104'		1513	2						X			X		3
SE0104'		1519	2						X			X		4
SW0104'		1522	2						X			X		5
GW01		1455	4					X				X		6
P10105'		1540	2						X			X		7
GW02		1538	4					X				X		8
P10202.5'	✓	1550	2						X			X		9
GW03		1547	4					X				X		10
Relinquished By:	Date:	Time:		Received By:	Date:	Time:		Turnaround Time:						
16/10/2021	7/29/21	1804		CL	7/29/21	1504		Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>						
Relinquished By:	Date:	Time:		Received By:	Date:	Time:								

Date Results Needed

12.5

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: 4107611

Client: WSP USA

Client Project ID: KMG-Berig 17-35

Checklist Completed by: Dan L...

Shipped Via: HD

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

Date/time completed: 7/29/12

Airbill #: NA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☒ Water ☐ Other: \_\_\_\_\_

(Describe)

Cooler Number/Temperature: 1 12.5 °C 1 °C 1 °C 1 °C

Thermometer ID: 1003

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

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

Reviewed by (Project Manager)

Date/Time Reviewed 7/29/12

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B01@5'

7/29/2021 3:03:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y107611-01 (Soil)

**Boron (DTPA Sorbitol)**

Boron	ND	0.200	mg/L	1	B1H0202	08/02/2021	08/03/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1G2904	07/29/2021	07/29/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	89.9 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1G2903	"	07/29/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	119 %	70-130			"	"	"	
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B01@5'

7/29/2021 3:03:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-01 (Soil)**

**GBTEX+TMBs**

Surrogate: Toluene-d8	98.1 %		70-130			B1G29 03	07/29/2021	07/29/2021	
Surrogate: 4-Bromofluorobenzene	100 %		70-130			"	"	"	

**Metals by Saturated Paste**

Calcium	1.63		0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021	
Magnesium	0.661		0.0823	"	"	"	"	"	
Sodium	2.88		0.0435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021	
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000431	0.00067	"	"	"	"	"	
Anthracene	ND	0.000426	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000441	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000133	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000138	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000486	0.00067	"	"	"	"	"	
Chrysene	ND	0.000256	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000279	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000529	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B01@5'

7/29/2021 3:03:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y107611-01 (Soil)

**PAH by 8270D SIM**

Fluorene	ND	0.000501	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021
Indeno(1,2,3-cd)pyrene	ND	0.000344	0.00067	"	"	"	"	"
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"
Pyrene	ND	0.000387	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	62.5 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	77.5 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	56.2 %	29-110	"	"	"

**pH in Soil by EPA 9045D**

pH	7.32	pH Units	1	B1H0301	08/03/2021	08/03/2021
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**SAR by 20B Saturated Paste**

SAR	2.69	SAR	1	B1H0308	08/03/2021	08/03/2021
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.603	0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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**Total Metals by 6020B**

Arsenic	1.38	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B01@5'

7/29/2021 3:03:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y107611-01 (Soil)

**Total Metals by 6020B**

Barium	61.8	0.042	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Cadmium	0.0784	0.0259	0.25	"	"	"	"	"	J
Copper	7.95	0.0806	0.25	"	"	"	"	"	
Lead	6.87	0.031	0.25	"	"	"	"	"	
Nickel	8.59	0.0633	0.25	"	"	"	"	"	
Selenium	0.307	0.103	0.25	"	"	"	"	"	
Silver	0.0246	0.0067	0.25	"	"	"	"	"	J
Zinc	31.9	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L566998	07/29/2021	08/03/2021	
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Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW01@4'  
7/29/2021 3:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.200	0.200	mg/L	1	B1H0202	08/02/2021	08/03/2021
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	645	25.0	mg/kg	1	B1G2904	07/29/2021	07/30/2021
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	07/29/2021 U

Surrogate: o-Terphenyl	87.0 %	50-150	"	"	"
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	5.51	0.0500	mg/kg	25	B1G2903	"	07/30/2021
1,3,5-Trimethylbenzene	4.64	0.0500	"	"	"	"	"
Benzene	0.164	0.0500	"	"	"	"	"
Ethylbenzene	1.78	0.0500	"	"	"	"	"
Toluene	1.95	0.0500	"	"	"	"	"
Gasoline Range Hydrocarbons	823	50.0	"	250	"	"	07/29/2021
Xylenes, total	27.8	0.500	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	116 %	70-130	"	"	07/30/2021
Surrogate: Toluene-d8	96.1 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.5 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW01@4'  
7/29/2021 3:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-02 (Soil)**

**Metals by Saturated Paste**

Calcium	4.48		0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021	
Magnesium	2.21		0.0823	"	"	"	"	"	
Sodium	5.07		0.0435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.284	0.0024	0.00335	mg/Kg	5	L566796	08/02/2021	08/02/2021	
2-Methylnaphthalene	0.668	0.00271	0.00335	"	"	"	"	"	
Acenaphthene	ND	0.00216	0.00335	"	"	"	"	"	
Anthracene	ND	0.00213	0.00335	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00221	0.00335	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000665	0.00335	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00069	0.00335	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00243	0.00335	"	"	"	"	"	
Chrysene	0.00141	0.00128	0.00335	"	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.0014	0.00335	"	"	"	"	"	
Fluoranthene	ND	0.00265	0.00335	"	"	"	"	"	
Fluorene	0.0245	0.00251	0.00335	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00172	0.00335	"	"	"	"	"	
Naphthalene	0.23	0.00234	0.00335	"	"	"	"	"	
Pyrene	ND	0.00194	0.00335	"	"	"	"	"	
Surrogate: 2-Fluorobiphenyl	65.9 %		33-115			"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW01@4'  
7/29/2021 3:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y107611-02 (Soil)

**PAH by 8270D SIM**

Surrogate: 4-Terphenyl-d14	81.4 %		33-122			L5667 96	08/02/2021	08/02/2021	
Surrogate: Nitrobenzene-d5	69.5 %		29-110			"	"	"	

**pH in Soil by EPA 9045D**

pH	7.17			pH Units	1	B1H0301	08/03/2021	08/03/2021	
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**SAR by 20B Saturated Paste**

SAR	2.77			SAR	1	B1H0308	08/03/2021	08/03/2021	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	1.02		0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021	
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**Total Metals by 6020B**

Arsenic	1.17	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	61.6	0.042	0.25	"	"	"	"	"	
Cadmium	0.0604	0.0259	0.25	"	"	"	"	"	J
Copper	4.44	0.0806	0.25	"	"	"	"	"	
Lead	4.86	0.031	0.25	"	"	"	"	"	
Nickel	5.5	0.0633	0.25	"	"	"	"	"	
Selenium	0.293	0.103	0.25	"	"	"	"	"	
Silver	0.0244	0.0067	0.25	"	"	"	"	"	J

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NW01@4'

7/29/2021 3:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-02 (Soil)

### Total Metals by 6020B

Zinc	23.2	0.534	2.5	mg/Kg	5	L566931	08/02/2021	08/04/2021
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### Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L566998	07/29/2021	08/03/2021
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE01@4'  
7/29/2021 3:13:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.200	mg/L	1	B1H0202	08/02/2021	08/03/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	626	25.0	mg/kg	1	B1G2904	07/29/2021	07/30/2021	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	07/29/2021	U

Surrogate: o-Terphenyl	81.0 %	50-150			"	"	"	
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	6.20	0.0500	mg/kg	25	B1G2903	"	07/30/2021	
1,3,5-Trimethylbenzene	5.24	0.0500	"	"	"	"	"	
Benzene	1.95	0.0500	"	"	"	"	"	
Ethylbenzene	2.05	0.0500	"	"	"	"	"	
Toluene	ND	0.0500	"	"	"	"	"	U
Gasoline Range Hydrocarbons	641	50.0	"	250	"	"	07/30/2021	
Xylenes, total	22.6	0.500	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	116 %	70-130			"	"	07/30/2021	
Surrogate: Toluene-d8	95.0 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.0 %	70-130			"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE01@4'  
7/29/2021 3:13:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-03 (Soil)**

**Metals by Saturated Paste**

Calcium	1.12		0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021	
Magnesium	0.553		0.0823	"	"	"	"	"	
Sodium	3.62		0.0435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.13	0.0024	0.00335	mg/Kg	5	L566796	08/02/2021	08/02/2021	
2-Methylnaphthalene	0.294	0.00271	0.00335	"	"	"	"	"	
Acenaphthene	ND	0.00216	0.00335	"	"	"	"	"	
Anthracene	ND	0.00213	0.00335	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00221	0.00335	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000665	0.00335	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00069	0.00335	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00243	0.00335	"	"	"	"	"	
Chrysene	ND	0.00128	0.00335	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0014	0.00335	"	"	"	"	"	
Fluoranthene	ND	0.00265	0.00335	"	"	"	"	"	
Fluorene	0.0187	0.00251	0.00335	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00172	0.00335	"	"	"	"	"	
Naphthalene	0.111	0.00234	0.00335	"	"	"	"	"	
Pyrene	ND	0.00194	0.00335	"	"	"	"	"	
Surrogate: 2-Fluorobiphenyl	48 %		33-115			"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE01@4'

7/29/2021 3:13:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y107611-03 (Soil)

**PAH by 8270D SIM**

Surrogate: 4-Terphenyl-d14	57.8 %		33-122			L5667 96	08/02/2021	08/02/2021	
Surrogate: Nitrobenzene-d5	51.1 %		29-110			"	"	"	

**pH in Soil by EPA 9045D**

pH	7.13			pH Units	1	B1H0301	08/03/2021	08/03/2021	
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**SAR by 20B Saturated Paste**

SAR	3.96			SAR	1	B1H0308	08/03/2021	08/03/2021	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.566		0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021	
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021	
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**Total Metals by 6020B**

Arsenic	1.67	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	113	0.042	0.25	"	"	"	"	"	
Cadmium	0.12	0.0259	0.25	"	"	"	"	"	J
Copper	8.1	0.0806	0.25	"	"	"	"	"	
Lead	8.88	0.031	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NE01@4'

7/29/2021 3:13:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-03 (Soil)

## Total Metals by 6020B

Nickel	11.6	0.0633	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Selenium	0.435	0.103	0.25	"	"	"	"	"	
Silver	0.0426	0.0067	0.25	"	"	"	"	"	J
Zinc	43.4	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SE01@4'

7/29/2021 3:19:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-04 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.198	mg/L	1	B1H0202	08/02/2021	08/03/2021
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	495	25.0	mg/kg	1	B1G2904	07/29/2021	07/30/2021
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	07/29/2021 U

Surrogate: o-Terphenyl	88.6 %	50-150	"	"	"
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	4.30	0.0500	mg/kg	25	B1G2903	"	07/30/2021
1,3,5-Trimethylbenzene	3.66	0.0500	"	"	"	"	"
Benzene	2.22	0.0500	"	"	"	"	"
Ethylbenzene	1.81	0.0500	"	"	"	"	"
Toluene	14.7	0.500	"	250	"	"	07/30/2021
Gasoline Range Hydrocarbons	756	50.0	"	"	"	"	"
Xylenes, total	25.9	0.500	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	124 %	70-130	"	"	07/30/2021
Surrogate: Toluene-d8	96.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	114 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SE01@4'

7/29/2021 3:19:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-04 (Soil)**

**Metals by Saturated Paste**

Calcium	1.44		0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021	
Magnesium	0.630		0.0823	"	"	"	"	"	
Sodium	4.16		0.0435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0901	0.0024	0.00335	mg/Kg	5	L566796	08/02/2021	08/02/2021	
2-Methylnaphthalene	0.215	0.00271	0.00335	"	"	"	"	"	
Acenaphthene	ND	0.00216	0.00335	"	"	"	"	"	
Anthracene	ND	0.00213	0.00335	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00221	0.00335	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000665	0.00335	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00069	0.00335	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00243	0.00335	"	"	"	"	"	
Chrysene	ND	0.00128	0.00335	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0014	0.00335	"	"	"	"	"	
Fluoranthene	ND	0.00265	0.00335	"	"	"	"	"	
Fluorene	0.00974	0.00251	0.00335	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00172	0.00335	"	"	"	"	"	
Naphthalene	0.0716	0.00234	0.00335	"	"	"	"	"	
Pyrene	ND	0.00194	0.00335	"	"	"	"	"	
Surrogate: 2-Fluorobiphenyl	72.9 %		33-115			"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SE01@4'

7/29/2021 3:19:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y107611-04 (Soil)**

**PAH by 8270D SIM**

Surrogate: 4-Terphenyl-d14	81.5 %		33-122			L5667 96	08/02/2021	08/02/2021	
Surrogate: Nitrobenzene-d5	72.9 %		29-110			"	"	"	

**pH in Soil by EPA 9045D**

pH	7.50			pH Units	1	B1H0301	08/03/2021	08/03/2021	
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**SAR by 20B Saturated Paste**

SAR	4.09			SAR	1	B1H0308	08/03/2021	08/03/2021	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.656		0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021	
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021	
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**Total Metals by 6020B**

Arsenic	0.875	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	65.4	0.042	0.25	"	"	"	"	"	
Cadmium	0.065	0.0259	0.25	"	"	"	"	"	J
Copper	3.77	0.0806	0.25	"	"	"	"	"	
Lead	5.03	0.031	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SE01@4'

7/29/2021 3:19:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-04 (Soil)

## Total Metals by 6020B

Nickel	5.35	0.0633	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Selenium	0.278	0.103	0.25	"	"	"	"	"	
Silver	0.017	0.0067	0.25	"	"	"	"	"	J
Zinc	19.8	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SW01@4'  
7/29/2021 3:22:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-05 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.258	0.198	mg/L	1	B1H0529	08/05/2021	08/06/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1G2904	07/29/2021	07/29/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	83.3 %	50-150			"	"	"	
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1G2903	"	07/29/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	0.00404	0.00200	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	113 %	70-130			"	"	"	
Surrogate: Toluene-d8	98.2 %	70-130			"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SW01@4'  
7/29/2021 3:22:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y107611-05 (Soil)

## GBTEX+TMBs

Surrogate: 4-Bromofluorobenzene	97.2 %	70-130	B1G29 03	07/29/2021	07/29/2021
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## Metals by Saturated Paste

Calcium	1.58	0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021
Magnesium	0.674	0.0823	"	"	"	"	"
Sodium	3.81	0.0435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"
Acenaphthene	ND	0.000431	0.00067	"	"	"	"	"
Anthracene	ND	0.000426	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.000441	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000133	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000138	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000486	0.00067	"	"	"	"	"
Chrysene	ND	0.000256	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000279	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000529	0.00067	"	"	"	"	"
Fluorene	ND	0.000501	0.00067	"	"	"	"	"

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SW01@4'  
7/29/2021 3:22:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y107611-05 (Soil)

**PAH by 8270D SIM**

Indeno(1,2,3-cd)pyrene	ND	0.000344	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"
Pyrene	ND	0.000387	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	64.4 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	72.6 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	57.8 %	29-110	"	"	"

**pH in Soil by EPA 9045D**

pH	7.65	pH Units	1	B1H0301	08/03/2021	08/03/2021
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**SAR by 20B Saturated Paste**

SAR	3.59	SAR	1	B1H0308	08/03/2021	08/03/2021
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.620	0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SW01@4'

7/29/2021 3:22:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-05 (Soil)

## Total Metals by 6020B

Arsenic	1.3	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	80.4	0.042	0.25	"	"	"	"	"	
Cadmium	0.107	0.0259	0.25	"	"	"	"	"	J
Copper	6.59	0.0806	0.25	"	"	"	"	"	
Lead	7.28	0.031	0.25	"	"	"	"	"	
Nickel	6.85	0.0633	0.25	"	"	"	"	"	
Selenium	0.479	0.103	0.25	"	"	"	"	"	
Silver	0.0221	0.0067	0.25	"	"	"	"	"	J
Zinc	37.5	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## GW01

7/29/2021 2:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y107611-06 (Water)

### Anions by IC 300.0

Chloride	185		31.2	mg/L	125	B1H0204	08/02/2021	08/02/2021	
Sulfate	193		31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	358		4.00	ug/L	4	B1G2805	07/29/2021	07/29/2021	
1,3,5-Trimethylbenzene	308		4.00	"	"	"	"	"	
Benzene	1480		100	"	100	"	"	07/29/2021	
Ethylbenzene	238		4.00	"	4	"	"	07/29/2021	
Naphthalene	20.1		16.0	"	"	"	"	"	
Toluene	3070		100	"	100	"	"	07/29/2021	
Xylenes, total	4560		100	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	100 %		70-130			"	"	07/29/2021	
Surrogate: Toluene-d8	103 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %		70-130			"	"	"	

### Total Dissolved Solids by 2540C

Total Dissolved Solids	901		5.00	mg/L	1	B1H0205	08/02/2021	08/03/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH01@5'  
7/29/2021 3:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-07 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.240	0.200	mg/L	1	B1H0529	08/05/2021	08/06/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	41.0	25.0	mg/kg	1	B1G2904	07/29/2021	07/30/2021	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	07/29/2021	U

Surrogate: o-Terphenyl	82.3 %	50-150	"	"	"	"	"	
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1G2903	"	07/29/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	4.82	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130	"	"	"	"	"	
Surrogate: Toluene-d8	99.0 %	70-130	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH01@5'

7/29/2021 3:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y107611-07 (Soil)

## GBTEX+TMBs

Surrogate: 4-Bromofluorobenzene	99.1 %	70-130	B1G29 03	07/29/2021	07/29/2021
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## Metals by Saturated Paste

Calcium	3.25	0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021
Magnesium	1.21	0.0823	"	"	"	"	"
Sodium	3.46	0.0435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"
Acenaphthene	ND	0.000431	0.00067	"	"	"	"	"
Anthracene	ND	0.000426	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.000441	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000133	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000138	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000486	0.00067	"	"	"	"	"
Chrysene	ND	0.000256	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000279	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000529	0.00067	"	"	"	"	"
Fluorene	0.000767	0.000501	0.00067	"	"	"	"	"

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH01@5'  
7/29/2021 3:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y107611-07 (Soil)

**PAH by 8270D SIM**

Indeno(1,2,3-cd)pyrene	ND	0.000344	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"
Pyrene	ND	0.000387	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	62.8 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	76.1 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	56.8 %	29-110	"	"	"

**pH in Soil by EPA 9045D**

pH	6.97	pH Units	1	B1H0301	08/03/2021	08/03/2021
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**SAR by 20B Saturated Paste**

SAR	2.31	SAR	1	B1H0308	08/03/2021	08/03/2021
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.832	0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

PH01@5'

7/29/2021 3:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-07 (Soil)

## Total Metals by 6020B

Arsenic	1.36	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	78.6	0.042	0.25	"	"	"	"	"	
Cadmium	0.157	0.0259	0.25	"	"	"	"	"	J
Copper	5.81	0.0806	0.25	"	"	"	"	"	
Lead	6.39	0.031	0.25	"	"	"	"	"	
Nickel	8.83	0.0633	0.25	"	"	"	"	"	
Selenium	0.286	0.103	0.25	"	"	"	"	"	
Silver	0.0222	0.0067	0.25	"	"	"	"	"	J
Zinc	33.3	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## GW02

7/29/2021 3:38:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y107611-08 (Water)

### Anions by IC 300.0

Chloride	114	31.2	mg/L	125	B1H0204	08/02/2021	08/09/2021	
Sulfate	161	31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1G2805	07/29/2021	07/29/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	4.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

### Total Dissolved Solids by 2540C

Total Dissolved Solids	660	5.00	mg/L	1	B1H0205	08/02/2021	08/05/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PH02@2.5'**

**7/29/2021 3:50:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-09 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	1.82	mg/L	1	B1H0202	08/02/2021	08/03/2021
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	187	25.0	mg/kg	1	B1G2904	07/29/2021	07/30/2021
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	07/29/2021 U

Surrogate: o-Terphenyl	92.6 %	50-150	"	"	"
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	1.41	0.0500	mg/kg	25	B1G2903	"	07/29/2021
1,3,5-Trimethylbenzene	1.57	0.0500	"	"	"	"	"
Benzene	0.164	0.00200	"	1	"	"	07/30/2021
Ethylbenzene	0.162	0.0500	"	25	"	"	07/29/2021
Toluene	0.00298	0.00200	"	1	"	"	07/30/2021
Gasoline Range Hydrocarbons	152	5.00	"	25	"	"	07/29/2021
Xylenes, total	1.73	0.0500	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	130 %	70-130	"	"	07/30/2021
Surrogate: Toluene-d8	126 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	106 %	70-130	"	"	07/29/2021

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH02@2.5'

7/29/2021 3:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-09 (Soil)**

**Metals by Saturated Paste**

Calcium	1.22		0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021	
Magnesium	0.601		0.0823	"	"	"	"	"	
Sodium	4.02		0.0435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0809	0.00048	0.00067	mg/Kg	1	L566796	08/02/2021	08/02/2021	
2-Methylnaphthalene	0.104	0.000542	0.00067	"	"	"	"	"	
Acenaphthene	0.0119	0.000431	0.00067	"	"	"	"	"	
Anthracene	ND	0.000426	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000441	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000133	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000138	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000486	0.00067	"	"	"	"	"	
Chrysene	0.000526	0.000256	0.00067	"	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.000279	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000529	0.00067	"	"	"	"	"	
Fluorene	0.0142	0.000501	0.00067	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.000344	0.00067	"	"	"	"	"	
Naphthalene	0.0646	0.000467	0.00067	"	"	"	"	"	
Pyrene	0.000517	0.000387	0.00067	"	"	"	"	"	J
Surrogate: 2-Fluorobiphenyl	64 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	71.8 %		33-122			"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## PH02@2.5'

7/29/2021 3:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y107611-09 (Soil)

### PAH by 8270D SIM

Surrogate: Nitrobenzene-d5	55 %	29-110	L5667 96	08/02/2021	08/02/2021
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### pH in Soil by EPA 9045D

pH	7.53	pH Units	1	B1H0301	08/03/2021	08/03/2021
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### SAR by 20B Saturated Paste

SAR	4.21	SAR	1	B1H0308	08/03/2021	08/03/2021
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### Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.592	0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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### Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021
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### Total Metals by 6020B

Arsenic	1.31	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021
Barium	47.5	0.042	0.25	"	"	"	"	"
Cadmium	0.0512	0.0259	0.25	"	"	"	"	" J
Copper	4.91	0.0806	0.25	"	"	"	"	"
Lead	5.17	0.031	0.25	"	"	"	"	"
Nickel	6.19	0.0633	0.25	"	"	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

PH02@2.5'

7/29/2021 3:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-09 (Soil)

## Total Metals by 6020B

Selenium	0.307	0.103	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Silver	0.0163	0.0067	0.25	"	"	"	"	"	J
Zinc	21.3	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## GW03

7/29/2021 3:47:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y107611-10 (Water)

### Anions by IC 300.0

Chloride	219		31.2	mg/L	125	B1H0204	08/02/2021	08/02/2021	
Sulfate	125		31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	97.0		4.00	ug/L	4	B1G2805	07/29/2021	07/29/2021	
1,3,5-Trimethylbenzene	68.1		4.00	"	"	"	"	"	
Benzene	177		4.00	"	"	"	"	"	
Ethylbenzene	49.5		4.00	"	"	"	"	"	
Naphthalene	ND		16.0	"	"	"	"	"	U
Toluene	ND		4.00	"	"	"	"	"	U
Xylenes, total	305		4.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.5 %	70-130	"	"	"

### Total Dissolved Solids by 2540C

Total Dissolved Solids	826		5.00	mg/L	1	B1H0205	08/02/2021	08/05/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH03@2.5'

7/29/2021 3:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-11 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.280	0.200	mg/L	1	B1H0202	08/02/2021	08/03/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	232	25.0	mg/kg	1	B1G2904	07/29/2021	07/30/2021	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	07/29/2021	U

Surrogate: o-Terphenyl	92.6 %	50-150	"	"	"	"	"	
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1G2903	"	07/30/2021	U
1,3,5-Trimethylbenzene	0.00462	0.00200	"	"	"	"	"	
Benzene	0.00842	0.00200	"	"	"	"	"	
Ethylbenzene	0.228	0.00200	"	"	"	"	"	
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	164	5.00	"	25	"	"	07/29/2021	
Xylenes, total	ND	0.00200	"	1	"	"	07/30/2021	U

Surrogate: 1,2-Dichloroethane-d4	115 %	70-130	"	"	"	"	"	
Surrogate: Toluene-d8	98.3 %	70-130	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH03@2.5'

7/29/2021 3:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y107611-11 (Soil)

## GBTEX+TMBs

Surrogate: 4-Bromofluorobenzene	95.9 %	70-130	B1G29 03	07/29/2021	07/29/2021
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## Metals by Saturated Paste

Calcium	2.31	0.0499	meq/L	1	[CALC]	08/03/2021	08/03/2021
Magnesium	1.00	0.0823	"	"	"	"	"
Sodium	3.23	0.0435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.204	0.0024	0.00335	mg/Kg	5	L566796	08/02/2021	08/02/2021
2-Methylnaphthalene	0.403	0.00271	0.00335	"	"	"	"	"
Acenaphthene	ND	0.00216	0.00335	"	"	"	"	"
Anthracene	ND	0.00213	0.00335	"	"	"	"	"
Benzo(a)anthracene	ND	0.00221	0.00335	"	"	"	"	"
Benzo(a)pyrene	ND	0.000665	0.00335	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00069	0.00335	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00243	0.00335	"	"	"	"	"
Chrysene	ND	0.00128	0.00335	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.0014	0.00335	"	"	"	"	"
Fluoranthene	ND	0.00265	0.00335	"	"	"	"	"
Fluorene	0.0421	0.00251	0.00335	"	"	"	"	"

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PH03@2.5'

7/29/2021 3:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y107611-11 (Soil)

## PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.00172	0.00335	mg/Kg	5	L566796	08/02/2021	08/02/2021
Naphthalene	0.114	0.00234	0.00335	"	"	"	"	"
Pyrene	ND	0.00194	0.00335	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	58.2 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	69.8 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	57.6 %		29-110			"	"	"

## pH in Soil by EPA 9045D

pH	7.88			pH Units	1	B1H0301	08/03/2021	08/03/2021
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## SAR by 20B Saturated Paste

SAR	2.51			SAR	1	B1H0308	08/03/2021	08/03/2021
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## Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.611		0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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## Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021
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Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

PH03@2.5'

7/29/2021 3:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y107611-11 (Soil)

## Total Metals by 6020B

Arsenic	1.99	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	85.3	0.042	0.25	"	"	"	"	"	
Cadmium	0.0995	0.0259	0.25	"	"	"	"	"	J
Copper	6.71	0.0806	0.25	"	"	"	"	"	
Lead	6.68	0.031	0.25	"	"	"	"	"	
Nickel	6.4	0.0633	0.25	"	"	"	"	"	
Selenium	0.293	0.103	0.25	"	"	"	"	"	
Silver	0.018	0.0067	0.25	"	"	"	"	"	J
Zinc	28.2	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## GW04

7/29/2021 4:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y107611-12 (Water)

### Anions by IC 300.0

Chloride	138	31.2	mg/L	125	B1H0204	08/02/2021	08/02/2021	
Sulfate	92.3	31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1G2805	07/29/2021	07/29/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	U
Benzene	3.32	1.00	"	"	"	"	"	
Ethylbenzene	11.1	1.00	"	"	"	"	"	
Naphthalene	4.04	4.00	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130	"	"	"
Surrogate: Toluene-d8	107 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.7 %	70-130	"	"	"

### Total Dissolved Solids by 2540C

Total Dissolved Solids	678	5.00	mg/L	1	B1H0205	08/02/2021	08/03/2021	
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Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Native-BG01@@2.5'**  
**7/29/2021 4:25:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-13 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.200	mg/L	1	B1H0202	08/02/2021	08/03/2021
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**Metals by Saturated Paste**

Calcium	2.36	0.0499	meq/L	"	[CALC]	08/03/2021	08/03/2021
Magnesium	0.846	0.0823	"	"	"	"	"
Sodium	3.01	0.0435	"	"	"	"	"

**pH in Soil by EPA 9045D**

pH	7.41		pH Units	1	B1H0301	08/03/2021	08/03/2021
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**SAR by 20B Saturated Paste**

SAR	2.38		SAR	1	B1H0309	08/03/2021	08/03/2021
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.703	0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

Native-BG01@@2.5'  
7/29/2021 4:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y107611-13 (Soil)

## Total Metals by 6020B

Arsenic	3.52	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	16.5	0.042	0.25	"	"	"	"	"	
Cadmium	ND	0.0259	0.25	"	"	"	"	"	
Copper	2.1	0.0806	0.25	"	"	"	"	"	
Lead	4.39	0.031	0.25	"	"	"	"	"	
Nickel	5.59	0.0633	0.25	"	"	"	"	"	
Selenium	0.212	0.103	0.25	"	"	"	"	"	J
Silver	ND	0.0067	0.25	"	"	"	"	"	
Zinc	21.4	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Native-BG01@@5'**  
**7/29/2021 4:28:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-14 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.198	mg/L	1	B1H0202	08/02/2021	08/03/2021
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**Metals by Saturated Paste**

Calcium	2.27	0.0499	meq/L	"	[CALC]	08/03/2021	08/03/2021
Magnesium	0.783	0.0823	"	"	"	"	"
Sodium	3.12	0.0435	"	"	"	"	"

**pH in Soil by EPA 9045D**

pH	7.30		pH Units	1	B1H0301	08/03/2021	08/03/2021
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**SAR by 20B Saturated Paste**

SAR	2.52		SAR	1	B1H0309	08/03/2021	08/03/2021
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.703	0.00500	mmhos/cm	1	B1H0302	08/03/2021	08/03/2021
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**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L567000	07/29/2021	08/03/2021
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

Native-BG01@@5'  
7/29/2021 4:28:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y107611-14 (Soil)

## Total Metals by 6020B

Arsenic	0.966	0.0855	0.25	mg/Kg	5	L566931	08/02/2021	08/04/2021	
Barium	76.6	0.042	0.25	"	"	"	"	"	
Cadmium	0.0774	0.0259	0.25	"	"	"	"	"	J
Copper	3.65	0.0806	0.25	"	"	"	"	"	
Lead	4.44	0.031	0.25	"	"	"	"	"	
Nickel	6.11	0.0633	0.25	"	"	"	"	"	
Selenium	0.218	0.103	0.25	"	"	"	"	"	J
Silver	0.0167	0.0067	0.25	"	"	"	"	"	J
Zinc	19.6	0.534	2.5	"	"	"	"	"	

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4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**GW-BG01****7/29/2021 4:37:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y107611-15 (Water)****Anions by IC 300.0**

Chloride	192		31.2	mg/L	125	B1H0204	08/02/2021	08/02/2021	
Sulfate	356		31.2	"	"	"	"	"	

**Total Dissolved Solids by 2540C**

Total Dissolved Solids	1200		5.00	"	1	B1H0205	08/02/2021	08/05/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1G2805 - EPA 5030B (Water)</b>										
<b>Blank (B1G2805-BLK1)</b>					Prepared: 07/28/2021 Analyzed: 07/29/2021					
1,2,4-Trimethylbenzene	ND	1.00	ug/L							U
1,3,5-Trimethylbenzene	ND	1.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	4.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1G2805 - EPA 5030B (Water)</b>										
<b>LCS (B1G2805-BS1)</b>					Prepared: 07/28/2021 Analyzed: 07/29/2021					
1,2,4-Trimethylbenzene	52.3	1.00	ug/L	50.0		105	70-130			
1,3,5-Trimethylbenzene	52.5	1.00	"	50.0		105	70-130			
Benzene	52.2	1.00	"	50.0		104	70-130			
Ethylbenzene	52.4	1.00	"	50.0		105	70-130			
m,p-Xylene	105	2.00	"	100		105	70-130			
Naphthalene	50.6	4.00	"	50.0		101	70-130			
o-Xylene	51.8	1.00	"	50.0		104	70-130			
Toluene	51.5	1.00	"	50.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.5	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1G2805 - EPA 5030B (Water)**

Matrix Spike (B1G2805-MS1)		Source: Y107525-21			Prepared: 07/28/2021 Analyzed: 07/30/2021					
1,2,4-Trimethylbenzene	50.0	1.00	ug/L	50.0	ND	99.9	70-130			
1,3,5-Trimethylbenzene	48.5	1.00	"	50.0	ND	97.0	70-130			
Benzene	50.2	1.00	"	50.0	ND	100	70-130			
Ethylbenzene	48.9	1.00	"	50.0	ND	97.8	70-130			
m,p-Xylene	97.6	2.00	"	100	ND	97.6	70-130			
Naphthalene	56.5	4.00	"	50.0	1.00	111	70-130			
o-Xylene	50.9	1.00	"	50.0	ND	102	70-130			
Toluene	49.5	1.00	"	50.0	ND	98.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1G2805 - EPA 5030B (Water)</b>										
<b>Matrix Spike Dup (B1G2805-MSD1)</b>		<b>Source: Y107525-21</b>			Prepared: 07/28/2021 Analyzed: 07/30/2021					
1,2,4-Trimethylbenzene	51.5	1.00	ug/L	50.0	ND	103	70-130	3.02	20	
1,3,5-Trimethylbenzene	51.0	1.00	"	50.0	ND	102	70-130	4.97	20	
Benzene	51.2	1.00	"	50.0	ND	102	70-130	1.89	20	
Ethylbenzene	51.0	1.00	"	50.0	ND	102	70-130	4.13	20	
m,p-Xylene	102	2.00	"	100	ND	102	70-130	3.89	20	
Naphthalene	57.2	4.00	"	50.0	1.00	112	70-130	1.30	20	
o-Xylene	52.0	1.00	"	50.0	ND	104	70-130	2.08	20	
Toluene	50.5	1.00	"	50.0	ND	101	70-130	2.06	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.5	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1G2903 - EPA 5030 (soil)</b>										
<b>Blank (B1G2903-BLK1)</b>					Prepared: 07/29/2021 Analyzed: 07/29/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.13		"	0.125	107		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	103		70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	99.5		70-130			

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Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1G2903 - EPA 5030 (soil)</b>										
<b>LCS (B1G2903-BS1)</b>					Prepared: 07/29/2021 Analyzed: 07/29/2021					
1,2,4-Trimethylbenzene	0.0603	0.00200	mg/kg	0.0500		121	70-130			
Naphthalene	0.0527	0.0100	"	0.0500		105	70-130			
1,3,5-Trimethylbenzene	0.0590	0.00200	"	0.0500		118	70-130			
Benzene	0.0568	0.00200	"	0.0500		114	70-130			
Ethylbenzene	0.0569	0.00200	"	0.0500		114	70-130			
m,p-Xylene	0.117	0.00400	"	0.100		117	70-130			
o-Xylene	0.0579	0.00200	"	0.0500		116	70-130			
Toluene	0.0581	0.00200	"	0.0500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		100	70-130			

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Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1G2903 - EPA 5030 (soil)**

Matrix Spike (B1G2903-MS1)		Source: Y107604-01			Prepared: 07/29/2021 Analyzed: 07/29/2021					
1,2,4-Trimethylbenzene	0.0520	0.00200	mg/kg	0.0500	ND	104	70-130			
Naphthalene	0.0502	0.0100	"	0.0500	0.00276	95.0	70-130			
1,3,5-Trimethylbenzene	0.0490	0.00200	"	0.0500	ND	98.0	70-130			
Benzene	0.0538	0.00200	"	0.0500	ND	108	70-130			
Ethylbenzene	0.0465	0.00200	"	0.0500	ND	93.0	70-130			
m,p-Xylene	0.100	0.00400	"	0.100	0.000580	99.8	70-130			
o-Xylene	0.0505	0.00200	"	0.0500	ND	101	70-130			
Toluene	0.0518	0.00200	"	0.0500	ND	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		123	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.2	70-130			

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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1G2903 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1G2903-MSD1)</b>		<b>Source: Y107604-01</b>			Prepared: 07/29/2021 Analyzed: 07/29/2021					
1,2,4-Trimethylbenzene	0.0597	0.00200	mg/kg	0.0500	ND	119	70-130	13.8	20	
Naphthalene	0.0541	0.0100	"	0.0500	0.00276	103	70-130	7.44	20	
1,3,5-Trimethylbenzene	0.0569	0.00200	"	0.0500	ND	114	70-130	15.0	20	
Benzene	0.0567	0.00200	"	0.0500	ND	113	70-130	5.14	20	
Ethylbenzene	0.0555	0.00200	"	0.0500	ND	111	70-130	17.7	20	
m,p-Xylene	0.117	0.00400	"	0.100	0.000580	116	70-130	14.9	20	
o-Xylene	0.0594	0.00200	"	0.0500	ND	119	70-130	16.2	20	
Toluene	0.0584	0.00200	"	0.0500	ND	117	70-130	11.9	20	
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

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

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B1G2904 - EPA 3550B

#### Blank (B1G2904-BLK1)

Prepared: 07/29/2021 Analyzed: 07/29/2021

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		92.7	50-150			

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Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G2904 - EPA 3550B

#### LCS (B1G2904-BS1)

Prepared: 07/29/2021 Analyzed: 07/29/2021

Diesel (C10-C28)	1010	50.0	mg/kg	1000		101	70-130			
Residual Range Organics (C28-C40)	1040	200	"	1000		104	70-130			
Surrogate: o-Terphenyl	54		"	50.0		108	50-150			

Origins Laboratory, Inc.



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4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B1G2904 - EPA 3550B

Matrix Spike (B1G2904-MS1)		Source: Y107604-01			Prepared: 07/29/2021 Analyzed: 07/29/2021					
Diesel (C10-C28)	1020	50.0	mg/kg	1000	ND	102	70-130			
Residual Range Organics (C28-C40)	1120	200	"	1000	63.8	105	70-130			
Surrogate: o-Terphenyl	51		"	50.0		101	50-150			

Origins Laboratory, Inc.



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4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G2904 - EPA 3550B

Matrix Spike Dup (B1G2904-MSD1)		Source: Y107604-01			Prepared: 07/29/2021 Analyzed: 07/29/2021					
Diesel (C10-C28)	977	50.0	mg/kg	1000	ND	97.7	70-130	4.56	35	
Residual Range Organics (C28-C40)	1090	200	"	1000	63.8	102	70-130	2.71	35	
Surrogate: o-Terphenyl	51		"	50.0		101	50-150			

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## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B1H0204 - Filter .45um non acidified

##### Blank (B1H0204-BLK1)

Prepared: 08/02/2021 Analyzed: 08/02/2021

Chloride	ND	0.250	mg/L
Fluoride	ND	0.100	"
Bromide	ND	0.100	"
Sulfate	ND	0.250	"
Nitrate	ND	0.100	"
Nitrite	ND	0.250	"
Phosphate	ND	0.100	"

##### LCS (B1H0204-BS1)

Prepared: 08/02/2021 Analyzed: 08/02/2021

Chloride	3.94	0.250	mg/L	4.00	98.5	90-110
Fluoride	ND	0.100	"	4.00		90-110
Bromide	ND	0.100	"	4.00		90-110
Sulfate	3.85	0.250	"	4.00	96.4	90-110
Nitrate	4.07	0.100	"	4.00	102	90-110
Nitrite	ND	0.250	"	4.00		90-110
Phosphate	ND	0.100	"	4.00		90-110

##### Matrix Spike (B1H0204-MS1)

Source: Y107610-07

Prepared: 08/02/2021 Analyzed: 08/02/2021

Chloride	567		mg/L	500	69.9	99.4	80-120
Fluoride	0.00		"	500	0.00		80-120
Bromide	0.00		"	500	0.00		80-120
Sulfate	632		"	500	146	97.2	80-120

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Project: KMG - Berig 17-35

## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0204 - Filter .45um non acidified</b>										
<b>Matrix Spike (B1H0204-MS1)</b>		<b>Source: Y107610-07</b>			Prepared: 08/02/2021 Analyzed: 08/02/2021					
Nitrate	507		mg/L	500	0.00	101	80-120			
Nitrite	0.00		"	500	0.00		80-120			
Phosphate	0.00		"	500	0.00		80-120			
<b>Matrix Spike Dup (B1H0204-MSD1)</b>		<b>Source: Y107610-07</b>			Prepared: 08/02/2021 Analyzed: 08/02/2021					
Chloride	576		mg/L	500	69.9	101	80-120	1.64	20	
Fluoride	0.00		"	500	0.00		80-120		20	
Bromide	0.00		"	500	0.00		80-120		20	
Sulfate	631		"	500	146	97.0	80-120	0.218	20	
Nitrate	501		"	500	0.00	100	80-120	1.11	20	
Nitrite	0.00		"	500	0.00		80-120		20	
Phosphate	0.00		"	500	0.00		80-120		20	
<b>Batch B1H0205 - NO PREP</b>										
<b>Blank (B1H0205-BLK1)</b>		Prepared: 08/02/2021 Analyzed: 08/03/2021								
Total Dissolved Solids	ND	5.00	mg/L							
<b>LCS (B1H0205-BS1)</b>		Prepared: 08/02/2021 Analyzed: 08/03/2021								
Total Dissolved Solids	981	5.00	mg/L	1000		98.1	85-115			
<b>Duplicate (B1H0205-DUP1)</b>		<b>Source: Y107610-07</b>			Prepared: 08/02/2021 Analyzed: 08/03/2021					
Total Dissolved Solids	1310	5.00	mg/L		1240			5.66	20	

Origins Laboratory, Inc.



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Project: KMG - Berig 17-35

## Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0301 - NO PREP</b>										
<b>Duplicate (B1H0301-DUP1)</b>		<b>Source: Y107610-02</b>			Prepared: 08/03/2021 Analyzed: 08/03/2021					
pH	7.29		pH Units		7.30			0.137	25	
<b>Batch B1H0302 - NO PREP</b>										
<b>Blank (B1H0302-BLK1)</b>		Prepared: 08/03/2021 Analyzed: 08/03/2021								
Specific Conductance (EC)	0.00130	0.00500	mmhos/cm							
<b>Duplicate (B1H0302-DUP1)</b>		<b>Source: Y107610-02</b>			Prepared: 08/03/2021 Analyzed: 08/03/2021					
Specific Conductance (EC)	1.11	0.00500	mmhos/cm		1.23			10.7	25	

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Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L566796 - 3550B**

MSD (L 97229-MSD-L566796)		Source: 97229			Prepared: 08/02/2021 Analyzed: 08/02/2021					
Chrysene	0.118	0.000256	mg/Kg	0.165	<0.000256	71.5	30-130	8.9	30	
Acenaphthene	0.103	0.000431	"	0.165	<0.000431	62.4	30-130	12.7	30	
1-Methylnaphthalene	0.0961	0.00048	"	0.165	<0.000480	58.2	30-130	11.6	30	
Indeno(1,2,3-cd)pyrene	0.0625	0.000344	"	0.165	<0.000344	37.8	30-130	18.9	30	
2-Methylnaphthalene	0.0931	0.000542	"	0.165	<0.000542	56.4	30-130	10	30	
Pyrene	0.12	0.000387	"	0.165	0.000578	72.7	30-130	6.4	30	
Anthracene	0.115	0.000426	"	0.165	<0.000426	69.6	30-130	10.6	30	
Benzo(a)anthracene	0.108	0.000441	"	0.165	<0.000441	65.4	30-130	8	30	
Benzo(a)pyrene	0.121	0.000133	"	0.165	0.000293	73.3	30-130	6.4	30	
Naphthalene	0.0945	0.000467	"	0.165	<0.000467	57.2	30-130	8.6	30	
Benzo(k)fluoranthene	0.0849	0.000486	"	0.165	<0.000486	51.4	30-130	20.2	30	
Dibenz(a,h)anthracene	0.0773	0.000279	"	0.165	<0.000279	46.8	30-130	16.1	30	
Fluoranthene	0.0902	0.000529	"	0.165	<0.000529	54.6	30-130	0.1	30	
Fluorene	0.107	0.000501	"	0.165	<0.000501	64.8	30-130	9.7	30	
Benzo(b)fluoranthene	0.0645	0.000138	"	0.165	0.000309	39	30-130	21.2	30	
Surrogate: Nitrobenzene-d5	55.1		"	0.33	205	55.1	29-110			
Surrogate: 2-Fluorobiphenyl	63.9		"	0.33	239	63.9	33-115			
Surrogate: 4-Terphenyl-d14	69.3		"	0.33	265	69.3	33-122			

MS (L 97229-MS-L566796)		Source: 97229			Prepared: 08/02/2021 Analyzed: 08/02/2021					
Acenaphthene	0.117	0.000431	mg/Kg	0.167	<0.000431	70	30-130			
Benzo(b)fluoranthene	0.0798	0.000138	"	0.167	0.000309	47.7	30-130			
Pyrene	0.128	0.000387	"	0.167	0.000578	76.6	30-130			
Indeno(1,2,3-cd)pyrene	0.0756	0.000344	"	0.167	<0.000344	45.2	30-130			
Fluoranthene	0.0901	0.000529	"	0.167	<0.000529	53.9	30-130			
Dibenz(a,h)anthracene	0.0909	0.000279	"	0.167	<0.000279	54.4	30-130			
2-Methylnaphthalene	0.103	0.000542	"	0.167	<0.000542	61.6	30-130			

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L566796 - 3550B**

MS (L 97229-MS-L566796)		Source: 97229			Prepared: 08/02/2021 Analyzed: 08/02/2021					
Benzo(k)fluoranthene	0.104	0.000486	mg/Kg	0.167	<0.000486	62.2	30-130			
1-Methylnaphthalene	0.108	0.00048	"	0.167	<0.000480	64.6	30-130			
Benzo(a)pyrene	0.129	0.000133	"	0.167	0.000293	77.2	30-130			
Benzo(a)anthracene	0.117	0.000441	"	0.167	<0.000441	70	30-130			
Anthracene	0.128	0.000426	"	0.167	<0.000426	76.6	30-130			
Fluorene	0.118	0.000501	"	0.167	<0.000501	70.6	30-130			
Chrysene	0.129	0.000256	"	0.167	<0.000256	77.2	30-130			
Naphthalene	0.103	0.000467	"	0.167	<0.000467	61.6	30-130			
Surrogate: Nitrobenzene-d5	56.4		"	0.333	205	56.4	29-110			
Surrogate: 4-Terphenyl-d14	73.2		"	0.333	265	73.2	33-122			
Surrogate: 2-Fluorobiphenyl	68.7		"	0.333	239	68.7	33-115			

LCS (LCS-L566796)		Prepared: 08/02/2021 Analyzed: 08/02/2021								
Benzo(k)fluoranthene	0.122	0.000486	mg/Kg	0.167		73	30-130			
2-Methylnaphthalene	0.112	0.000542	"	0.167		67	30-130			
Acenaphthene	0.124	0.000431	"	0.167		74.2	30-130			
Anthracene	0.135	0.000426	"	0.167		80.8	30-130			
Benzo(a)anthracene	0.122	0.000441	"	0.167		73	30-130			
1-Methylnaphthalene	0.117	0.00048	"	0.167		70	30-130			
Benzo(b)fluoranthene	0.0797	0.000138	"	0.167		47.7	30-130			
Indeno(1,2,3-cd)pyrene	0.0699	0.000344	"	0.167		41.8	30-130			
Chrysene	0.136	0.000256	"	0.167		81.4	30-130			
Dibenz(a,h)anthracene	0.0816	0.000279	"	0.167		48.8	30-130			
Fluoranthene	0.136	0.000529	"	0.167		81.4	30-130			
Fluorene	0.124	0.000501	"	0.167		74.2	30-130			
Naphthalene	0.113	0.000467	"	0.167		67.6	30-130			
Pyrene	0.135	0.000387	"	0.167		80.8	30-130			

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L566796 - 3550B**

**LCS (LCS-L566796)**

Prepared: 08/02/2021 Analyzed: 08/02/2021

Benzo(a)pyrene	0.133	0.000133	mg/Kg	0.167		79.6	30-130			
Surrogate: 2-Fluorobiphenyl	85.8		"	0.333		85.8	33-115			
Surrogate: 4-Terphenyl-d14	85.5		"	0.333		85.5	33-122			
Surrogate: Nitrobenzene-d5	66.3		"	0.333		66.3	29-110			

**LRB (LRB-L566796)**

Prepared: 08/02/2021 Analyzed: 08/02/2021

Acenaphthene	ND	0.00067	mg/Kg				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Surrogate: 2-Fluorobiphenyl	71.4		"	0.333		71.4	33-115			
Surrogate: 4-Terphenyl-d14	79.2		"	0.333		79.2	33-122			
Surrogate: Nitrobenzene-d5	63		"	0.333		63	29-110			

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Total Metals by 7196A - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L567000 -</b>										
<b>DUP (L 97235-DUP)</b>	<b>Source: Y107611-03</b>				Prepared: Analyzed: 08/03/2021					
Chromium, Hexavalent	ND	0.244	mg/Kg		<0.500		-	0	20	
<b>MS (L 97235-MS)</b>	<b>Source: Y107611-03</b>				Prepared: Analyzed: 08/03/2021					
Chromium, Hexavalent	ND	0.244	mg/Kg	7.89	<0.244	0	75-125			*
<b>LRB (LRB)</b>	Prepared: Analyzed: 08/03/2021									
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Total Metals by 6020B - Quality Control

### Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch L566931 - 3050B

MSD (L 97215-MSD-L566931)			Source: 97215			Prepared: 08/02/2021 Analyzed: 08/04/2021				
Lead	7.08	0.031	mg/Kg	2.38	4.41	112	75-125	5.2	80	
Barium	22.7	0.042	"	4.75	15.9	143	75-125	4.3	80	*
Arsenic	5.47	0.0855	"	2.38	3.62	78	75-125	7	80	
Copper	4.22	0.0806	"	2.38	2.04	92	75-125	1.1	80	
Nickel	8.07	0.0633	"	2.38	5.76	97	75-125	1.6	80	
Selenium	3.62	0.103	"	4.75	0.261	71	75-125	2.4	80	*
Silver	0.43	0.0067	"	0.475	0.00752	90	75-125	6.7	80	
Zinc	42.6	0.534	"	23.8	19.9	96	75-125	0.9	80	
Cadmium	0.453	0.0259	"	0.475	0.0271	95	75-125	8.4	80	
MS (L 97215-MS-L566931)			Source: 97215			Prepared: 08/02/2021 Analyzed: 08/04/2021				
Zinc	43	0.534	mg/Kg	24.7	19.9	94	75-125			
Selenium	3.71	0.103	"	4.94	0.261	70	75-125			*
Nickel	7.94	0.0633	"	2.47	5.76	88	75-125			
Lead	6.72	0.031	"	2.47	4.41	94	75-125			
Copper	4.17	0.0806	"	2.47	2.04	86	75-125			
Cadmium	0.493	0.0259	"	0.494	0.0271	100	75-125			
Barium	23.7	0.042	"	4.94	15.9	158	75-125			*
Arsenic	5.1	0.0855	"	2.47	3.62	60	75-125			*
Silver	0.46	0.0067	"	0.494	0.00752	93	75-125			
LCS (LCS-L566931)			Prepared: 08/02/2021 Analyzed: 08/04/2021							
Nickel	2.4	0.0633	mg/Kg	2.5		96	80-120			
Selenium	5	0.103	"	5		100	80-120			
Lead	2.31	0.031	"	2.5		92	80-120			
Copper	2.36	0.0806	"	2.5		94	80-120			
Cadmium	0.428	0.0259	"	0.5		86	80-120			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L566931 - 3050B</b>										
<b>LCS (LCS-L566931)</b>					Prepared: 08/02/2021 Analyzed: 08/04/2021					
Barium	4.75	0.042	mg/Kg	5		95	80-120			
Arsenic	2.36	0.0855	"	2.5		94	80-120			
Zinc	24	0.534	"	25		96	80-120			
Silver	0.447	0.0067	"	0.5		89	80-120			
<b>LRB (LRB-L566931)</b>					Prepared: 08/02/2021 Analyzed: 08/04/2021					
Zinc	ND	2.5	mg/Kg				-			
Silver	ND	0.25	"				-			
Selenium	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Cadmium	ND	0.25	"				-			
Barium	0.0431	0.25	"				-			J
Arsenic	ND	0.25	"				-			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Total Metals by 7196A - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L566998 -</b>										
<b>DUP (L 97225-DUP)</b>		<b>Source: 97225</b>			Prepared: Analyzed: 08/03/2021					
Chromium, Hexavalent	ND	0.244	mg/Kg		<0.500		-	0	20	
<b>MS (L 97225-MS)</b>		<b>Source: 97225</b>			Prepared: Analyzed: 08/03/2021					
Chromium, Hexavalent	6.36	0.244	mg/Kg	7.98	<0.244	80	75-125			
<b>LCS (LCS)</b>					Prepared: Analyzed: 08/03/2021					
Chromium, Hexavalent	6.82	0.244	mg/Kg	8		85	75-125			

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



August 13, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO 80003

Project Name - KMG - Berig 17-35

Project Number - 31403177.138

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. August 12, 2021. This project is associated with Origins project number Y108280-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Ditch-01	Y108280-01	Water	August 12, 2021 15:55	08/12/2021 17:50
Ditch-02	Y108280-02	Water	August 12, 2021 16:05	08/12/2021 17:50
Ditch-03	Y108280-03	Water	August 12, 2021 16:15	08/12/2021 17:50
Ditch-04	Y108280-04	Water	August 12, 2021 16:18	08/12/2021 17:50
Ditch-05	Y108280-05	Water	August 12, 2021 16:21	08/12/2021 17:50
Ditch-06	Y108280-06	Water	August 12, 2021 16:25	08/12/2021 17:50
SW01	Y108280-07	Water	August 12, 2021 16:31	08/12/2021 17:50

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

page 1 of 1

Client: WSP USA  
Address: 4600 W. 60th Ave. Arvada 80003  
Telephone Number:   
Email Address: DH

Project Manager: Brian Sulzberger  
Project Name: Berig 17-35  
Project Number: 31403177.138  
Samples Collected By: DH

Sample ID Description	Date Sampled	Time Sampled	Preservative				Matrix	Analysis	Sample Instructions
			Unpreserved	HCl	HNO <sub>3</sub>	Other			
D14h-01	8-12-21	1555	X				Soil	813x+12 1135 TMB 1135 TMB	6w plastic bag, holding
D14h-02		1605						X	2
D14h-03		1615						X	3
D14h-04		1618						X	4
D14h-05		1621						X	5
D14h-06		1625						X	6
SW01		1631						X	7
									8
									9
									10

Relinquished By: *Noelle Mathis*

Date: 8/12/21

Received By: *[Signature]*

Date: 8/12/21

Time: 1750

Turnaround Time: Same Day ☒ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☐

Origins Laboratory, Inc.

*Jefe Pellegrini*

Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

1916 Date Results Needed

Page 3 of 16

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: Y108280

Client: WSP

Client Project ID: Berig 17-35

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 8/12/21

Airbill #: N/A

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

☒ Water

Other:

Cooler Number/Temperature: 1 / 17.6 °C

1 °C

1 °C

(Describe) 1 °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager)

8/12/21  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jefe Pellegrini*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Ditch-01

8/12/2021 3:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc.

Y108280-01 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	ND	1.00	"	"	"	DJL	"	"	U
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	96.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.1 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Ditch-02

8/12/2021 4:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc.

Y108280-02 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	ND	1.00	"	"	"	DJL	"	"	U
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	99.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.2 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Ditch-03

8/12/2021 4:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y108280-03 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	ND	1.00	"	"	"	DJL	"	"	U
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.9 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Ditch-04

8/12/2021 4:18:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y108280-04 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	ND	1.00	"	"	"	DJL	"	"	U
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	98.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.7 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Ditch-05

8/12/2021 4:21:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc.

Y108280-05 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	ND	1.00	"	"	"	DJL	"	"	U
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.0 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Ditch-06

8/12/2021 4:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y108280-06 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	ND	1.00	"	"	"	DJL	"	"	U
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	97.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.4 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SW01

8/12/2021 4:31:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y108280-07 (Water)

## BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1H1207	DJL	08/12/2021	08/12/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Benzene	ND	1.00	"	"	"	DJL	"	"	U
Ethylbenzene	ND	1.00	"	"	"	DJL	"	"	U
Naphthalene	ND	4.00	"	"	"	DJL	"	"	U
Toluene	2.57	1.00	"	"	"	DJL	"	"	
Xylenes, total	ND	1.00	"	"	"	DJL	"	"	U

Surrogate: 1,2-Dichloroethane-d4

109 %

70-130

"

"

"

Surrogate: Toluene-d8

95.5 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

97.0 %

70-130

"

"

"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1H1207 - EPA 5030B (Water)**

**Blank (B1H1207-BLK1)**

Prepared: 08/12/2021 Analyzed: 08/12/2021

1,2,4-Trimethylbenzene	ND	1.00	ug/L							U
1,3,5-Trimethylbenzene	ND	1.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	4.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.3	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch B1H1207 - EPA 5030B (Water)**

**LCS (B1H1207-BS1)**

Prepared: 08/12/2021 Analyzed: 08/12/2021

1,2,4-Trimethylbenzene	57.9	1.00	ug/L	50.0		116	70-130			
1,3,5-Trimethylbenzene	57.4	1.00	"	50.0		115	70-130			
Benzene	58.9	1.00	"	50.0		118	70-130			
Ethylbenzene	57.4	1.00	"	50.0		115	70-130			
m,p-Xylene	115	2.00	"	100		115	70-130			
Naphthalene	65.0	4.00	"	50.0		130	70-130			
o-Xylene	60.0	1.00	"	50.0		120	70-130			
Toluene	56.6	1.00	"	50.0		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		108	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.9	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1H1207 - EPA 5030B (Water)**

Matrix Spike (B1H1207-MS1)		Source: Y108255-01			Prepared: 08/12/2021 Analyzed: 08/12/2021					
1,2,4-Trimethylbenzene	58.7	1.00	ug/L	50.0	117	70-130				
1,3,5-Trimethylbenzene	55.0	1.00	"	50.0	110	70-130				
Benzene	55.4	1.00	"	50.0	111	70-130				
Ethylbenzene	52.2	1.00	"	50.0	104	70-130				
m,p-Xylene	107	2.00	"	100	107	70-130				
Naphthalene	69.0	4.00	"	50.0	138	70-130				QM-07
o-Xylene	59.6	1.00	"	50.0	119	70-130				
Toluene	54.8	1.00	"	50.0	110	70-130				
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5	103	70-130				
Surrogate: Toluene-d8	63		"	62.5	101	70-130				
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101	70-130				

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H1207 - EPA 5030B (Water)</b>										
<b>Matrix Spike Dup (B1H1207-MSD1)</b>		<b>Source: Y108255-01</b>			Prepared: 08/12/2021 Analyzed: 08/12/2021					
1,2,4-Trimethylbenzene	56.7	1.00	ug/L	50.0		113	70-130	3.57	20	
1,3,5-Trimethylbenzene	53.3	1.00	"	50.0		107	70-130	3.21	20	
Benzene	56.2	1.00	"	50.0		112	70-130	1.51	20	
Ethylbenzene	53.3	1.00	"	50.0		107	70-130	2.12	20	
m,p-Xylene	107	2.00	"	100		107	70-130	0.560	20	
Naphthalene	65.4	4.00	"	50.0		131	70-130	5.39	20	QM-07
o-Xylene	59.2	1.00	"	50.0		118	70-130	0.707	20	
Toluene	54.3	1.00	"	50.0		109	70-130	0.899	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		100	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



November 23, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35 & UP 42-35 1 O SA Facility**    **Project Number - 31403177.179.05**

Attached are your analytical results for KMG - Berig 17-35 & UP 42-35 1 O SA Facility received by Origins Laboratory, Inc. November 18, 2021. This project is associated with Origins project number Y111376-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA  
Facility

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@6"	Y111376-01	Soil	November 18, 2021 9:00	11/18/2021 15:40
TB-BG01@6"	Y111376-02	Soil	November 18, 2021 9:30	11/18/2021 15:40

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

www.originslaboratory.com

page 1 of 1

**ORIGINS**  
LABORATORY, INC

Y11370

Client:

WSP

Address:

4600 W 60th Ave  
Arvada Co 80003

Project Manager:

Brian Sulzberger

Project Name:

Berig 17-35 & UP 42-35 1 O SA Facility

Project Number:

31403177.179.05

Telephone Number:

PS

Email Address:

KMG Group

Samples Collected By:

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions		
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #	Other	GC/MS+N	Test (over 100)	PH/EC		SAR (sp)	Boron
AST6106"	11-18-21	0900	2	X					X				X	X	X	GW protection	1
TB-Bowle6"	11-18-21	0930	2	X					X				X	X	X		2
																	3
																	4
																	5
																	6
																	7
																	8
																	9
																	10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
Brian Sulzberger	11-18-21	1540	PS	11/18/21	15:40	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/>
						48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>

Date Results Needed

Temp Received: 21

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: Y111376

Client: WSP

Client Project ID: Berig 17-35 + UP 42-35

Checklist Completed by: YH

Shipped Via: HD

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

Date/time completed: 11/15/12

Airbill #: NA

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

(Describe)

Cooler Number/Temperature: 1 12.1 °C / °C / °C / °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

AST01@6"

11/18/2021 9:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y111376-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.198	mg/L	1	B1K1810	11/18/2021	11/19/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1K1809	11/18/2021	11/18/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	108 %	50-150			"	"	"	
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**GBTEX+TMBs**

Naphthalene	ND	0.00380	mg/kg	1	B1K1811	11/18/2021	11/18/2021	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

AST01@6"

11/18/2021 9:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y111376-01 (Soil)

## Metals by Saturated Paste

Calcium	9.71	0.499	meq/L	10	[CALC]	11/18/2021	11/19/2021
Magnesium	2.53	0.823	"	"	"	"	"
Sodium	0.531	0.435	"	"	"	"	"

## pH in Soil by 9045D

pH	6.99		pH Units	1	B1K1806	11/18/2021	11/19/2021
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## SAR by 20B Saturated Paste

SAR	0.214		SAR	1	B1K1805	11/18/2021	11/19/2021
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.38	0.00500	mmhos/cm	1	B1K1807	11/18/2021	11/19/2021
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

TB-BG01@6"

11/18/2021 9:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y111376-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.200	mg/L	1	B1K1810	11/18/2021	11/19/2021
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**Metals by Saturated Paste**

Calcium	ND	0.499	meq/L	10	[CALC]	11/18/2021	11/19/2021
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	7.13		pH Units	1	B1K1806	11/18/2021	11/19/2021
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**SAR by 20B Saturated Paste**

SAR	0.249		SAR	1	B1K1805	11/18/2021	11/19/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.0925	0.00500	mmhos/cm	1	B1K1807	11/18/2021	11/19/2021
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**Total Metals by 6020B**

Arsenic	0.835	0.0855	0.25	mg/Kg	5	L586016	11/22/2021	11/22/2021
Barium	30.7	0.042	0.25	"	"	"	"	"
Cadmium	0.168	0.0259	0.25	"	"	"	"	"

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Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

TB-BG01@6"

11/18/2021 9:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
**Y111376-02 (Soil)**

**Total Metals by 6020B**

Copper	6.96	0.0806	0.25	mg/Kg	5	L586016	11/22/2021	11/22/2021	
Lead	10.7	0.031	0.25	"	"	"	"	"	
Nickel	3.06	0.0633	0.25	"	"	"	"	"	
Selenium	ND	0.103	0.25	"	"	"	"	"	
Silver	0.0803	0.0067	0.25	"	"	"	"	"	J
Zinc	28.8	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.25	0.514	mg/Kg	1	L586087	11/18/2021	11/22/2021	
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Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B1K1809 - EPA 3550B

#### Blank (B1K1809-BLK1)

Prepared: 11/18/2021 Analyzed: 11/18/2021

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	22		"	24.9		88.2	50-150			

Origins Laboratory, Inc.



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Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1K1809 - EPA 3550B

**LCS (B1K1809-BS1)**

Prepared: 11/18/2021 Analyzed: 11/18/2021

Diesel (C10-C28)	441	25.0	mg/kg	500		88.1	70-130			
Residual Range Organics (C28-C40)	476	100	"	500		95.1	70-130			
Surrogate: o-Terphenyl	23		"	24.9		93.4	50-150			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B1K1809 - EPA 3550B

Matrix Spike (B1K1809-MS1)		Source: Y111376-01			Prepared: 11/18/2021 Analyzed: 11/18/2021					
Diesel (C10-C28)	532	25.0	mg/kg	500	ND	106	70-130			
Residual Range Organics (C28-C40)	527	100	"	500	14.9	102	70-130			
Surrogate: o-Terphenyl	27		"	24.9		109	50-150			

Origins Laboratory, Inc.



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Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B1K1809 - EPA 3550B

Matrix Spike Dup (B1K1809-MSD1)		Source: Y111376-01			Prepared: 11/18/2021 Analyzed: 11/18/2021					
Diesel (C10-C28)	546	25.0	mg/kg	500	ND	109	70-130	2.62	35	
Residual Range Organics (C28-C40)	547	100	"	500	14.9	107	70-130	3.82	35	
Surrogate: o-Terphenyl	27		"	24.9		110	50-150			

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Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B1K1811 - EPA 5030 (soil)

#### Blank (B1K1811-BLK1)

Prepared: 11/18/2021 Analyzed: 11/18/2021

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.13		"	0.125	103		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	100		70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	99.4		70-130			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1K1811 - EPA 5030 (soil)**

**LCS (B1K1811-BS1)**

Prepared: 11/18/2021 Analyzed: 11/18/2021

1,2,4-Trimethylbenzene	0.104	0.00200	mg/kg	0.100		104	70-130			
Naphthalene	0.106	0.0100	"	0.100		106	70-130			
1,3,5-Trimethylbenzene	0.103	0.00200	"	0.100		103	70-130			
Benzene	0.100	0.00200	"	0.100		100	70-130			
Ethylbenzene	0.100	0.00200	"	0.100		100	70-130			
m,p-Xylene	0.200	0.00400	"	0.200		99.9	70-130			
o-Xylene	0.103	0.00200	"	0.100		103	70-130			
Toluene	0.0993	0.00200	"	0.100		99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		100	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1K1811 - EPA 5030 (soil)**

Matrix Spike (B1K1811-MS1)		Source: Y111367-01			Prepared: 11/18/2021 Analyzed: 11/18/2021					
1,2,4-Trimethylbenzene	0.0450	0.00200	mg/kg	0.100	ND	45.0	70-130			QM-07
Naphthalene	0.0413	0.0100	"	0.100	ND	41.3	70-130			QM-07
1,3,5-Trimethylbenzene	0.0443	0.00200	"	0.100	ND	44.3	70-130			QM-07
Benzene	0.0779	0.00200	"	0.100	ND	77.9	70-130			
Ethylbenzene	0.0650	0.00200	"	0.100	ND	65.0	70-130			QM-07
m,p-Xylene	0.130	0.00400	"	0.200	ND	65.2	70-130			QM-07
o-Xylene	0.0662	0.00200	"	0.100	ND	66.2	70-130			QM-07
Toluene	0.0726	0.00200	"	0.100	ND	72.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		109	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.14		"	0.125		116	70-130			

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1K1811 - EPA 5030 (soil)**

Matrix Spike Dup (B1K1811-MSD1)		Source: Y111367-01			Prepared: 11/18/2021 Analyzed: 11/18/2021					
1,2,4-Trimethylbenzene	0.0535	0.00200	mg/kg	0.100	ND	53.5	70-130	17.2	20	QM-07
Naphthalene	0.0511	0.0100	"	0.100	ND	51.1	70-130	21.3	20	QM-07
1,3,5-Trimethylbenzene	0.0520	0.00200	"	0.100	ND	52.0	70-130	15.9	20	QM-07
Benzene	0.0818	0.00200	"	0.100	ND	81.8	70-130	4.88	20	
Ethylbenzene	0.0713	0.00200	"	0.100	ND	71.3	70-130	9.36	20	
m,p-Xylene	0.141	0.00400	"	0.200	ND	70.7	70-130	8.18	20	
o-Xylene	0.0721	0.00200	"	0.100	ND	72.1	70-130	8.45	20	
Toluene	0.0766	0.00200	"	0.100	ND	76.6	70-130	5.28	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.14		"	0.125		111	70-130			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Saturated Paste - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1K1806 - NO PREP**

**Duplicate (B1K1806-DUP1)**

**Source: Y111350-03**

Prepared: 11/18/2021 Analyzed: 11/19/2021

pH	8.37		pH Units	8.43		0.714	25
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**Batch B1K1807 - NO PREP**

**Blank (B1K1807-BLK1)**

Prepared: 11/18/2021 Analyzed: 11/19/2021

Specific Conductance (EC)	0.00260	0.00500	mmhos/cm
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**Duplicate (B1K1807-DUP1)**

**Source: Y111350-03**

Prepared: 11/18/2021 Analyzed: 11/19/2021

Specific Conductance (EC)	1.62	0.00500	mmhos/cm	1.54		4.86	25
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Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L586016 - 3050B**

MSD (L 86312-MSD-L586016)		Source: 86312			Prepared: 11/22/2021 Analyzed: 11/22/2021					
Silver	0.511	0.0067	mg/Kg	0.468	0.19	109	75-125	8.7	80	
Zinc	78.8	0.534	"	23.4	71.1	33	75-125	6.7	80	*
Selenium	3.19	0.103	"	4.68	0.478	58	75-125	12.3	80	*
Nickel	12.2	0.0633	"	2.34	11.9	13	75-125	11.5	80	*
Lead	17.2	0.031	"	2.34	19	NR	75-125	1.7	80	*
Copper	16.2	0.0806	"	2.34	17.2	NR	75-125	6.5	80	*
Cadmium	0.705	0.0259	"	0.468	0.46	52	75-125	16.4	80	*
Barium	116	0.042	"	4.68	147	NR	75-125	8.2	80	*
Arsenic	3.55	0.0855	"	2.34	2.29	54	75-125	8.8	80	*
MS (L 86312-MS-L586016)		Source: 86312			Prepared: 11/22/2021 Analyzed: 11/22/2021					
Silver	0.558	0.0067	mg/Kg	0.489	0.19	114	75-125			
Barium	126	0.042	"	4.89	147	NR	75-125			*
Cadmium	0.831	0.0259	"	0.489	0.46	76	75-125			
Copper	17.3	0.0806	"	2.45	17.2	4	75-125			*
Lead	17.5	0.031	"	2.45	19	NR	75-125			*
Selenium	3.61	0.103	"	4.89	0.478	64	75-125			*
Zinc	84.3	0.534	"	24.5	71.1	54	75-125			*
Arsenic	3.88	0.0855	"	2.45	2.29	65	75-125			*
Nickel	13.7	0.0633	"	2.45	11.9	74	75-125			*
LCS (LCS-L586016)					Prepared: 11/22/2021 Analyzed: 11/22/2021					
Selenium	4.66	0.103	mg/Kg	5		93	80-120			
Silver	0.465	0.0067	"	0.5		93	80-120			
Nickel	2.24	0.0633	"	2.5		90	80-120			
Lead	2.37	0.031	"	2.5		95	80-120			
Copper	2.34	0.0806	"	2.5		94	80-120			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

## Total Metals by 6020B - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L586016 - 3050B

#### LCS (LCS-L586016)

Prepared: 11/22/2021 Analyzed: 11/22/2021

Barium	4.81	0.042	mg/Kg	5		96	80-120			
Arsenic	2.37	0.0855	"	2.5		95	80-120			
Cadmium	0.458	0.0259	"	0.5		92	80-120			
Zinc	23.2	0.534	"	25		93	80-120			

#### LRB (LRB-L586016)

Prepared: 11/22/2021 Analyzed: 11/22/2021

Arsenic	ND	0.25	mg/Kg				-			
Zinc	ND	2.5	"				-			
Silver	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Cadmium	ND	0.25	"				-			
Barium	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Selenium	ND	0.25	"				-			

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Brian Sulzberger  
Project Number: 31403177.179.05  
Project: KMG - Berig 17-35 & UP 42-35 1 O SA Facility

**Total Metals by 7196A - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L586087 -</b>										
<b>DUP (L 85856-DUP)</b>	<b>Source: Y111376-02</b>				Prepared: Analyzed: 11/22/2021					
Chromium, Hexavalent	ND	0.497	mg/Kg		85856	-		0	20	
<b>MS (L 85856-MS)</b>	<b>Source: Y111376-02</b>				Prepared: Analyzed: 11/22/2021					
Chromium, Hexavalent	5.98	0.497	mg/Kg	8.19	85856	73	75-125			*
<b>LCS (LCS)</b>					Prepared: Analyzed: 11/22/2021					
Chromium, Hexavalent	7.15	0.244	mg/Kg	8		89	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 11/22/2021					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.179.05

Project: KMG - Berig 17-35 & UP 42-35 1 O SA  
Facility

### Notes and Definitions

U Sample is Non-Detect.

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

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



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December 08, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35 FL**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 FL received by Origins Laboratory, Inc. December 01, 2021. This project is associated with Origins project number Y112044-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B06@6'	Y112044-01	Soil	December 1, 2021 15:09	12/01/2021 17:10
B07@6'	Y112044-02	Soil	December 1, 2021 15:06	12/01/2021 17:10
B08@6'	Y112044-03	Soil	December 1, 2021 15:15	12/01/2021 17:10
B09@6'	Y112044-04	Soil	December 1, 2021 15:24	12/01/2021 17:10
SW04@4'	Y112044-05	Soil	December 1, 2021 15:20	12/01/2021 17:10
SW05@4'	Y112044-06	Soil	December 1, 2021 15:30	12/01/2021 17:10

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

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ORIGINS  
LABORATORY, INC

page 1 of 1

Client: WSP USA  
Address: 4600 W 60th Ave  
Arvada, Co 80003  
Telephone Number: 303 889 9943  
Email Address: KMG Group

Project Manager: Brian Sulzberger  
Project Name: Berig 17-35 Flowline Release  
Project Number: 31403177.138  
Samples Collected By: Kyle Mathews

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil		
B0606	12/1/21	1509	2							1, 2, 4 TMB 1, 3, 5 TMB 2 methylhydro Selenium	Grand water protection
B0706		1506	1							X	
B0806		1515								X	
B0906		1524								X	
S00404		1520								X	
S00504		1530								X	

Relinquished By: Kyle Mathews Date: 12/1/21 Time: 1708  
Relinquished By: Kyle Mathews Date: 12/1/21 Time: 1710

Turnaround Time: Same Day ☒ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☐

Date Results Needed

Temp Received: 7.4

Origins Laboratory, Inc.

*Jordan A. Merrill*

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WSP USA

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Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: Y112044

Client: WSP

Client Project ID: Berig Berig 17-35 FL

Checklist Completed by: YH

Shipped Via: TD

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

Date/time completed: 12/1/12

Airbill #: NA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_

Cooler Number/Temperature: 1 17.4 °C 1 °C 1 °C (Describe) \_\_\_\_\_ °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 12/1/12

Origins Laboratory, Inc.

[Signature]

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

B06@6'  
12/1/2021 3:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112044-01 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0124	12/01/2021	12/01/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 95.7 % 50-150 " " "

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L0121	12/01/2021	12/02/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "  
Surrogate: Toluene-d8 107 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

B06@6'

12/1/2021 3:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112044-01 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L588039	12/04/2021	12/05/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	55.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	82 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	42.2 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588019	12/03/2021	12/07/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**B07@6'**  
**12/1/2021 3:06:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112044-02 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0124	12/01/2021	12/01/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	97.8 %	50-150	"	"	"
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L0121	12/01/2021	12/02/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	<b>0.371</b>	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	107 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

B07@6'

12/1/2021 3:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112044-02 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.000538	0.00033	0.00067	mg/Kg	1	L588039	12/04/2021	12/05/2021	J
2-Methylnaphthalene	0.00062	0.00039	0.00067	"	"	"	"	"	J
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	52.3 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	73.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	39.6 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588019	12/03/2021	12/07/2021	
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Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**B08@6'**  
**12/1/2021 3:15:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112044-03 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0124	12/01/2021	12/01/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 96.4 % 50-150 " " "

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L0121	12/01/2021	12/02/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "  
Surrogate: Toluene-d8 108 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

B08@6'

12/1/2021 3:15:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112044-03 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L588039	12/04/2021	12/05/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	58.8 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	83 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	46.4 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588019	12/03/2021	12/07/2021	
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Origins Laboratory, Inc.



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WSP USA  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

B09@6'

12/1/2021 3:24:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112044-04 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1L0124	12/01/2021	12/01/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 97.3 % 50-150 " " "

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B1L0121	12/01/2021	12/02/2021	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 105 % 70-130 " " "  
Surrogate: Toluene-d8 107 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

B09@6'

12/1/2021 3:24:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112044-04 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L588039	12/04/2021	12/05/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	66 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	91.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	50.6 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588019	12/03/2021	12/07/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

SW04@4'

12/1/2021 3:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112044-05 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0124	12/01/2021	12/01/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 92.4 % 50-150 " " "

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L0121	12/01/2021	12/02/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "  
Surrogate: Toluene-d8 107 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

SW04@4'

12/1/2021 3:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112044-05 (Soil)

## PAH by 8270D SIM

1-Methylnaphthalene	0.00176	0.00033	0.00067	mg/Kg	1	L588039	12/04/2021	12/05/2021	
2-Methylnaphthalene	0.00204	0.00039	0.00067	"	"	"	"	"	
Naphthalene	0.000556	0.000467	0.00067	"	"	"	"	"	J

Surrogate: 2-Fluorobiphenyl	63.6 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	92.4 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	48.3 %		29-110			"	"	"	

## Total Metals by 6020B

Selenium	ND	0.103	0.25	mg/Kg	5	L588019	12/03/2021	12/07/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

SW05@4'

12/1/2021 3:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y112044-06 (Soil)

## DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0124	12/01/2021	12/01/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	101 %	50-150	"	"	"
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## GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L0121	12/01/2021	12/02/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	107 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

## PAH by 8270D SIM

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

SW05@4'

12/1/2021 3:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112044-06 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L588039	12/04/2021	12/05/2021
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	69 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	83.7 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	51.5 %		29-110			"	"	"

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588019	12/03/2021	12/07/2021
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0121 - EPA 5030 (soil)</b>										
<b>Blank (B1L0121-BLK1)</b>					Prepared: 12/01/2021 Analyzed: 12/02/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.12		"	0.125		99.3	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1L0121 - EPA 5030 (soil)**

**LCS (B1L0121-BS1)**

Prepared: 12/01/2021 Analyzed: 12/02/2021

1,2,4-Trimethylbenzene	0.0998	0.00200	mg/kg	0.100		99.8	70-130			
Naphthalene	0.110	0.0100	"	0.100		110	70-130			
1,3,5-Trimethylbenzene	0.101	0.00200	"	0.100		101	70-130			
Benzene	0.0838	0.00200	"	0.100		83.8	70-130			
Ethylbenzene	0.103	0.00200	"	0.100		103	70-130			
m,p-Xylene	0.204	0.00400	"	0.200		102	70-130			
o-Xylene	0.103	0.00200	"	0.100		103	70-130			
Toluene	0.0984	0.00200	"	0.100		98.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.3	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0121 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1L0121-MS1)</b>		<b>Source: Y112040-01</b>			Prepared: 12/01/2021 Analyzed: 12/02/2021					
1,2,4-Trimethylbenzene	0.0130	0.00200	mg/kg	0.100	ND	13.0	70-130			QM-07
Naphthalene	0.0239	0.0100	"	0.100	ND	23.9	70-130			QM-07
1,3,5-Trimethylbenzene	0.0122	0.00200	"	0.100	ND	12.2	70-130			QM-07
Benzene	0.0236	0.00200	"	0.100	ND	23.6	70-130			QM-07
Ethylbenzene	0.0193	0.00200	"	0.100	ND	19.3	70-130			QM-07
m,p-Xylene	0.0364	0.00400	"	0.200	ND	18.2	70-130			QM-07
o-Xylene	0.0190	0.00200	"	0.100	ND	19.0	70-130			QM-07
Toluene	0.0238	0.00200	"	0.100	ND	23.8	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0121 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1L0121-MSD1)</b>	<b>Source: Y112040-01</b>				Prepared: 12/01/2021 Analyzed: 12/02/2021					
1,2,4-Trimethylbenzene	0.0798	0.00200	mg/kg	0.100	ND	79.8	70-130	144	20	QM-07
Naphthalene	0.0915	0.0100	"	0.100	ND	91.5	70-130	117	20	QM-07
1,3,5-Trimethylbenzene	0.0806	0.00200	"	0.100	ND	80.6	70-130	147	20	QM-07
Benzene	0.0732	0.00200	"	0.100	ND	73.2	70-130	103	20	QM-07
Ethylbenzene	0.0850	0.00200	"	0.100	ND	85.0	70-130	126	20	QM-07
m,p-Xylene	0.170	0.00400	"	0.200	ND	84.9	70-130	129	20	QM-07
o-Xylene	0.0867	0.00200	"	0.100	ND	86.7	70-130	128	20	QM-07
Toluene	0.0842	0.00200	"	0.100	ND	84.2	70-130	112	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		106	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0124 - EPA 3550B</b>										
<b>Blank (B1L0124-BLK1)</b>					Prepared: 12/01/2021 Analyzed: 12/01/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		93.3	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0124 - EPA 3550B

LCS (B1L0124-BS1)

Prepared: 12/01/2021 Analyzed: 12/01/2021

Diesel (C10-C28)	940	50.0	mg/kg	1000		94.0	70-130			
Residual Range Organics (C28-C40)	1090	200	"	1000		109	70-130			
Surrogate: o-Terphenyl	58		"	49.8		116	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0124 - EPA 3550B

Matrix Spike (B1L0124-MS1)		Source: Y112040-01			Prepared: 12/01/2021 Analyzed: 12/01/2021					
Diesel (C10-C28)	913	50.0	mg/kg	1000	ND	91.3	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000	ND	103	70-130			
Surrogate: o-Terphenyl	50		"	49.8		101	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0124 - EPA 3550B

Matrix Spike Dup (B1L0124-MSD1)		Source: Y112040-01			Prepared: 12/01/2021 Analyzed: 12/01/2021					
Diesel (C10-C28)	938	50.0	mg/kg	1000	ND	93.8	70-130	2.69	35	
Residual Range Organics (C28-C40)	1070	200	"	1000	ND	107	70-130	3.35	35	
Surrogate: o-Terphenyl	60		"	49.8		120	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## PAH by 8270D SIM - Quality Control

### Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch L588039 - 3550B

MSD (L 90913-MSD-L588039)		Source: 90913			Prepared: 12/04/2021 Analyzed: 12/05/2021					
1-Methylnaphthalene	0.251	0.00165	mg/Kg	0.164	0.13	73.7	30-130	37.9	30	
2-Methylnaphthalene	0.384	0.00195	"	0.164	0.261	75	30-130	53.4	30	
Naphthalene	0.143	0.00234	"	0.164	0.0464	58.9	30-130	12.6	30	
Surrogate: 2-Fluorobiphenyl	47.5		"	0.328	147	47.5	33-115			
Surrogate: 4-Terphenyl-d14	69.2		"	0.328	218	69.2	33-122			
Surrogate: Nitrobenzene-d5	30.1		"	0.328	113	30.1	29-110			
MS (L 90913-MS-L588039)		Source: 90913			Prepared: 12/04/2021 Analyzed: 12/05/2021					
1-Methylnaphthalene	0.171	0.00165	mg/Kg	0.166	0.13	24.6	30-130			*
Naphthalene	0.126	0.00234	"	0.166	0.0464	47.9	30-130			
2-Methylnaphthalene	0.222	0.00195	"	0.166	0.261	NR	30-130			*
Surrogate: Nitrobenzene-d5	38		"	0.331	113	38	29-110			
Surrogate: 2-Fluorobiphenyl	46.2		"	0.331	147	46.2	33-115			
Surrogate: 4-Terphenyl-d14	72.2		"	0.331	218	72.2	33-122			
LCS (LCS-L588039)		Prepared: 12/04/2021 Analyzed: 12/05/2021								
2-Methylnaphthalene	0.121	0.00039	mg/Kg	0.167		72.4	30-130			
1-Methylnaphthalene	0.131	0.00033	"	0.167		78.4	30-130			
Naphthalene	0.118	0.000467	"	0.167		70.6	30-130			
Surrogate: Nitrobenzene-d5	45.6		"	0.333		45.6	29-110			
Surrogate: 4-Terphenyl-d14	77.4		"	0.333		77.4	33-122			
Surrogate: 2-Fluorobiphenyl	66.3		"	0.333		66.3	33-115			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

PAH by 8270D SIM - Quality Control  
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L588039 - 3550B										
LRB (LRB-L588039)					Prepared: 12/04/2021 Analyzed: 12/05/2021					
1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	39.9		"	0.333	39.9		29-110			
Surrogate: 2-Fluorobiphenyl	55.5		"	0.333	55.5		33-115			
Surrogate: 4-Terphenyl-d14	72		"	0.333	72		33-122			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L588019 - 3050B</b>										
<b>MSD (L 91000-MSD-L588019)</b>	<b>Source: 91000</b>				Prepared: 12/03/2021 Analyzed: 12/07/2021					
Selenium	3.16	0.103	mg/Kg	4.68	<0.103	67	75-125	4.3	80	*
<b>MS (L 91000-MS-L588019)</b>	<b>Source: 91000</b>				Prepared: 12/03/2021 Analyzed: 12/07/2021					
Selenium	3.3	0.103	mg/Kg	4.95	<0.103	67	75-125			*
<b>LCS (LCS-L588019)</b>					Prepared: 12/03/2021 Analyzed: 12/07/2021					
Selenium	5.15	0.103	mg/Kg	5		103	80-120			
<b>LRB (LRB-L588019)</b>					Prepared: 12/03/2021 Analyzed: 12/07/2021					
Selenium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

## Notes and Definitions

U Sample is Non-Detect.

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

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Merrill, Project Manager



December 14, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35 FL**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 FL received by Origins Laboratory, Inc. December 03, 2021. This project is associated with Origins project number Y112112-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE02@4'	Y112112-01	Soil	December 3, 2021 14:21	12/03/2021 15:31
S01@4'	Y112112-02	Soil	December 3, 2021 14:25	12/03/2021 15:31

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Merrill, Project Manager



WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: 1112112

Client: WSP

Client Project ID: Berig 17-35

Checklist Completed by: JH

Shipped Via: HD

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

Date/time completed: 12/3/21

Airbill #: NA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_ (Describe)

Cooler Number/Temperature: 1 4.7 °C 1 °C 1 °C 1 °C

Thermometer ID: 1003

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

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

Reviewed by (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

SE02@4'

12/3/2021 2:21:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112112-01 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1L0324	12/03/2021	12/03/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	92.2 %	50-150	"	"	"
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**GBTEX+TMBs**

Naphthalene	ND	0.00380	mg/kg	1	B1L0325	12/03/2021	12/04/2021	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	<b>0.270</b>	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	107 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588920	12/08/2021	12/10/2021
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

S01@4'

12/3/2021 2:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112112-02 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1L0324	12/03/2021	12/03/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 81.7 % 50-150 " " "

**GBTEX+TMBs**

Naphthalene	ND		0.00380	mg/kg	1	B1L0325	12/03/2021	12/04/2021	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 70-130 " " "  
Surrogate: Toluene-d8 108 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L588920	12/08/2021	12/10/2021	
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1L0324 - EPA 3550B										
Blank (B1L0324-BLK1)					Prepared: 12/03/2021 Analyzed: 12/03/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	24		"	24.9		97.4	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0324 - EPA 3550B

LCS (B1L0324-BS1)

Prepared: 12/03/2021 Analyzed: 12/03/2021

Diesel (C10-C28)	865	50.0	mg/kg	1000		86.5	70-130			
Residual Range Organics (C28-C40)	1060	200	"	1000		106	70-130			
Surrogate: o-Terphenyl	48		"	49.8		96.6	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0324 - EPA 3550B

Matrix Spike (B1L0324-MS1)		Source: Y112112-01			Prepared: 12/03/2021 Analyzed: 12/03/2021					
Diesel (C10-C28)	886	50.0	mg/kg	1000	ND	88.6	70-130			
Residual Range Organics (C28-C40)	1100	200	"	1000	ND	110	70-130			
Surrogate: o-Terphenyl	50		"	49.8		101	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1L0324 - EPA 3550B										
<b>Matrix Spike Dup (B1L0324-MSD1)</b>			<b>Source: Y112112-01</b>		Prepared: 12/03/2021 Analyzed: 12/03/2021					
Diesel (C10-C28)	891	50.0	mg/kg	1000	ND	89.1	70-130	0.558	35	
Residual Range Organics (C28-C40)	1100	200	"	1000	ND	110	70-130	0.242	35	
Surrogate: o-Terphenyl	54		"	49.8		109	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1L0325 - EPA 5030 (soil)										
Blank (B1L0325-BLK1)					Prepared: 12/03/2021 Analyzed: 12/03/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Xylenes, total	ND	0.00200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	106		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	106		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	104		70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0325 - EPA 5030 (soil)</b>										
<b>LCS (B1L0325-BS1)</b>					Prepared: 12/03/2021 Analyzed: 12/03/2021					
1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100		105	70-130			
Naphthalene	0.117	0.0100	"	0.100		117	70-130			
1,3,5-Trimethylbenzene	0.107	0.00200	"	0.100		107	70-130			
Benzene	0.0871	0.00200	"	0.100		87.1	70-130			
Ethylbenzene	0.106	0.00200	"	0.100		106	70-130			
m,p-Xylene	0.216	0.00400	"	0.200		108	70-130			
o-Xylene	0.107	0.00200	"	0.100		107	70-130			
Toluene	0.103	0.00200	"	0.100		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0325 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1L0325-MS1)</b>		<b>Source: Y112111-01</b>			Prepared: 12/03/2021 Analyzed: 12/03/2021					
1,2,4-Trimethylbenzene	0.0523	0.00200	mg/kg	0.100	0.0293	23.0	70-130			QM-07
Naphthalene	0.118	0.0100	"	0.100	0.0332	84.6	70-130			
1,3,5-Trimethylbenzene	0.0505	0.00200	"	0.100	ND	50.5	70-130			QM-07
Benzene	0.0698	0.00200	"	0.100	ND	69.8	70-130			QM-07
Ethylbenzene	0.0732	0.00200	"	0.100	ND	73.2	70-130			
m,p-Xylene	0.137	0.00400	"	0.200	ND	68.4	70-130			QM-07
o-Xylene	0.0729	0.00200	"	0.100	ND	72.9	70-130			
Toluene	0.0757	0.00200	"	0.100	ND	75.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		112	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.19		"	0.125		150	70-130			QM-07

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0325 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1L0325-MSD1)</b>		<b>Source: Y112111-01</b>			Prepared: 12/03/2021 Analyzed: 12/03/2021					
1,2,4-Trimethylbenzene	0.0657	0.00200	mg/kg	0.100	0.0293	36.4	70-130	22.8	20	QM-07
Naphthalene	0.126	0.0100	"	0.100	0.0332	93.0	70-130	6.90	20	
1,3,5-Trimethylbenzene	0.0633	0.00200	"	0.100	ND	63.3	70-130	22.5	20	QM-07
Benzene	0.0757	0.00200	"	0.100	ND	75.7	70-130	8.03	20	
Ethylbenzene	0.0850	0.00200	"	0.100	ND	85.0	70-130	14.9	20	
m,p-Xylene	0.160	0.00400	"	0.200	ND	80.2	70-130	15.9	20	
o-Xylene	0.0833	0.00200	"	0.100	ND	83.3	70-130	13.4	20	
Toluene	0.0841	0.00200	"	0.100	ND	84.1	70-130	10.4	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		106	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.19		"	0.125		152	70-130			QM-07

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L588920 - 3050B**

<b>MSD (L 92224-MSD-L588920)</b>		<b>Source: 92224</b>			Prepared: 12/08/2021 Analyzed: 12/10/2021					
Selenium	3.6	0.103	mg/Kg	4.98	<0.103	72	75-125	4.2	80	*
<b>MS (L 92224-MS-L588920)</b>		<b>Source: 92224</b>			Prepared: 12/08/2021 Analyzed: 12/10/2021					
Selenium	3.45	0.103	mg/Kg	4.63	<0.103	75	75-125			
<b>LCS (LCS-L588920)</b>					Prepared: 12/08/2021 Analyzed: 12/10/2021					
Selenium	4.68	0.103	mg/Kg	5		94	80-120			
<b>LRB (LRB-L588920)</b>					Prepared: 12/08/2021 Analyzed: 12/10/2021					
Selenium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

### Notes and Definitions

U Sample is Non-Detect.

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

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Merrill, Project Manager

December 17, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada CO 80003

**Project Name - KMG - Berig 17-35****Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. December 09, 2021. This project is associated with Origins project number Y112260-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com





WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B02@6'	Y112260-01	Soil	December 9, 2021 15:50	12/09/2021 17:40
B03@6'	Y112260-02	Soil	December 9, 2021 15:53	12/09/2021 17:40
B04@8'	Y112260-03	Soil	December 9, 2021 15:57	12/09/2021 17:40
B05@8'	Y112260-04	Soil	December 9, 2021 16:00	12/09/2021 17:40
B10@8'	Y112260-05	Soil	December 9, 2021 16:05	12/09/2021 17:40
B11@8'	Y112260-06	Soil	December 9, 2021 16:09	12/09/2021 17:40
B12@8'	Y112260-07	Soil	December 9, 2021 16:13	12/09/2021 17:40
B13@8'	Y112260-08	Soil	December 9, 2021 16:17	12/09/2021 17:40
B14@7'	Y112260-09	Soil	December 9, 2021 16:21	12/09/2021 17:40
NE02@4'	Y112260-10	Soil	December 9, 2021 16:24	12/09/2021 17:40
NE03@4'	Y112260-11	Soil	December 9, 2021 16:30	12/09/2021 17:40
NE04@4'	Y112260-12	Soil	December 9, 2021 16:33	12/09/2021 17:40
NE05@4'	Y112260-13	Soil	December 9, 2021 16:36	12/09/2021 17:40
NE06@4'	Y112260-14	Soil	December 9, 2021 16:39	12/09/2021 17:40

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE03@4'	Y112260-15	Soil	December 9, 2021 16:42	12/09/2021 17:40
SW02@4'	Y112260-16	Soil	December 9, 2021 16:46	12/09/2021 17:40
SW03@4'	Y112260-17	Soil	December 9, 2021 16:49	12/09/2021 17:40
NW02@4'	Y112260-18	Soil	December 9, 2021 16:52	12/09/2021 17:40
NW03@4'	Y112260-19	Soil	December 9, 2021 16:55	12/09/2021 17:40

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

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page 1 of 2

**ORIGINS**  
LABORATORY, INC

**ORIGINS**

Client: WSP USA

Address: 4600 W. 60th Ave. Arvada 80003

Project Manager: Brian Sulzberger

Project Name: Berig 17-35

Project Number: 31403177.138

Samples Collected By: Dakota Hatch

Telephone Number:

Email Address: Dakota.Hatch@KMG-Group

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis	Sample Instructions
B0206'	12-9-21	15:50	2	Unpreserved	Soil	As Summed	6/2/21
B0306'		15:53					
B0408'		15:57					
B0508'		16:00					
B0608'		16:05					
B0708'		16:08					
B0808'		16:13					
B0907'		16:17					
B1007'		16:21					
B1107'		16:24					
B1204'		16:24					
B1308'		16:24					
B1407'		16:24					
B1504'		16:24					
B1604'		16:24					
B1704'		16:24					
B1804'		16:24					
B1904'		16:24					
B2004'		16:24					
B2104'		16:24					
B2204'		16:24					
B2304'		16:24					
B2404'		16:24					
B2504'		16:24					
B2604'		16:24					
B2704'		16:24					
B2804'		16:24					
B2904'		16:24					
B3004'		16:24					
B3104'		16:24					
B3204'		16:24					
B3304'		16:24					
B3404'		16:24					
B3504'		16:24					
B3604'		16:24					
B3704'		16:24					
B3804'		16:24					
B3904'		16:24					
B4004'		16:24					
B4104'		16:24					
B4204'		16:24					
B4304'		16:24					
B4404'		16:24					
B4504'		16:24					
B4604'		16:24					
B4704'		16:24					
B4804'		16:24					
B4904'		16:24					
B5004'		16:24					
B5104'		16:24					
B5204'		16:24					
B5304'		16:24					
B5404'		16:24					
B5504'		16:24					
B5604'		16:24					
B5704'		16:24					
B5804'		16:24					
B5904'		16:24					
B6004'		16:24					
B6104'		16:24					
B6204'		16:24					
B6304'		16:24					
B6404'		16:24					
B6504'		16:24					
B6604'		16:24					
B6704'		16:24					
B6804'		16:24					
B6904'		16:24					
B7004'		16:24					
B7104'		16:24					
B7204'		16:24					
B7304'		16:24					
B7404'		16:24					
B7504'		16:24					
B7604'		16:24					
B7704'		16:24					
B7804'		16:24					
B7904'		16:24					
B8004'		16:24					
B8104'		16:24					
B8204'		16:24					
B8304'		16:24					
B8404'		16:24					
B8504'		16:24					
B8604'		16:24					
B8704'		16:24					
B8804'		16:24					
B8904'		16:24					
B9004'		16:24					
B9104'		16:24					
B9204'		16:24					
B9304'		16:24					
B9404'		16:24					
B9504'		16:24					
B9604'		16:24					
B9704'		16:24					
B9804'		16:24					
B9904'		16:24					
B10004'		16:24					

Date Results Needed

6.3

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

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page 2 of 2

**ORIGINS**  
LABORATORY, INC

Client: WSP USA  
Address: 4600 W. 60th Ave, Arvada 80003  
Telephone Number: 303.433.1322  
Email Address: brian@wsp.com

Project Manager: Brian Sulzberger  
Project Name: Berig 17-35  
Project Number: 31403177.138  
Sampler Collected By: Dakota Hatch

Sample ID Description Date Sampled Time Sampled

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis	Sample Instructions
NE0304	8-9-21	16:30	2	Depressured	Soil	As Turned	For Plot 1
NE0404	8-9-21	16:33	1	Depressured	Soil	As Turned	2
NE0504	8-9-21	16:36	1	Depressured	Soil	As Turned	3
NE0604	8-9-21	16:39	1	Depressured	Soil	As Turned	4
SE1304	8-9-21	16:42	1	Depressured	Soil	As Turned	5
SW0204	8-9-21	16:45	1	Depressured	Soil	As Turned	6
SW0304	8-9-21	16:48	1	Depressured	Soil	As Turned	7
SW0204	8-9-21	16:50	1	Depressured	Soil	As Turned	8
SW0304	8-9-21	16:52	1	Depressured	Soil	As Turned	9
SW0304	8-9-21	16:55	1	Depressured	Soil	As Turned	10

Relinquished By: [Signature] Date: 12-09-21 Time: 17:40  
Relinquished By: [Signature] Date: 12-09-21 Time: 17:40

Received By: [Signature] Date: 12-09-21 Time: 17:40  
Received By: [Signature] Date: 12-09-21 Time: 17:40

Turnaround Time: Same Day ☒ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☐

Date Results Needed: 6.3

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: 442260 Client: WSP  
Client Project ID: Berig 17-35

Checklist Completed by: JKH Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Date/time completed: 12/1/12 Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
(Describe)

Cooler Number/Temperature: 1 16.3 °C 1 °C 1 °C 1 °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) Kevin J. H. Date/Time Reviewed 12/1/12

Origins Laboratory, Inc.

*Jordan A. Merrill*

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B02@6'

12/9/2021 3:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-01 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0189	0.00033	0.00067	mg/Kg	1	L589875	12/14/2021	12/14/2021	
2-Methylnaphthalene	0.0341	0.00039	0.00067	"	"	"	"	"	
Naphthalene	0.00679	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	63 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	80.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	52.1 %		29-110			"	"	"	

**Total Metals by 6020B**

Barium	50.3	0.042	0.25	mg/Kg	5	L589538	12/13/2021	12/13/2021	
Selenium	ND	0.103	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B03@6'  
12/9/2021 3:53:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-02 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L589875	12/14/2021	12/14/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	67 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	78.5 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	55.2 %		29-110			"	"	"	

**Total Metals by 6020B**

Barium	44.7	0.042	0.25	mg/Kg	5	L589538	12/13/2021	12/13/2021	
Selenium	ND	0.103	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B04@8'  
12/9/2021 3:57:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-03 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.000787	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
2-Methylnaphthalene	0.00151	0.00039	0.00067	"	"	"	"	"	
Naphthalene	0.000579	0.000467	0.00067	"	"	"	"	"	J

Surrogate: 2-Fluorobiphenyl	66.4 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	93 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	55.5 %		29-110			"	"	"	

**Total Metals by 6020B**

Barium	55.6	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	0.162	0.103	0.25	"	"	"	"	"	J

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B05@8'

12/9/2021 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-04 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00826	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
2-Methylnaphthalene	0.0144	0.00039	0.00067	"	"	"	"	"	
Naphthalene	0.00296	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	68 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	90.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	57.5 %		29-110			"	"	"	

**Total Metals by 6020B**

Barium	49.3	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	0.165	0.103	0.25	"	"	"	"	"	J

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**B10@8'**  
**12/9/2021 4:05:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-05 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 64.2 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0138	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	0.00992	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.18	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 172 % 70-130 " " " S-04  
Surrogate: Toluene-d8 98.8 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 121 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B10@8'

12/9/2021 4:05:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112260-05 (Soil)

## PAH by 8270D SIM

2-Methylnaphthalene	0.000429	0.00039	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	J
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	67 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	83.3 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	58.5 %		29-110			"	"	"	

## Total Metals by 6020B

Barium	69.2	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	0.184	0.103	0.25	"	"	"	"	"	J

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B11@8'  
12/9/2021 4:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-06 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	61.2 %	50-150	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	0.00216	0.00200	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	0.00996	0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	99.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B11@8'  
12/9/2021 4:09:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-06 (Soil)

**PAH by 8270D SIM**

2-Methylnaphthalene	0.00075	0.00039	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
Naphthalene	0.00131	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	61.2 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	82.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	52.9 %		29-110			"	"	"	

**Total Metals by 6020B**

Barium	61.5	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	ND	0.103	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**B12@8'**  
**12/9/2021 4:13:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-07 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 69.0 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0636	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021
1,3,5-Trimethylbenzene	0.0520	0.00200	"	"	"	"	"
Benzene	0.0164	0.00200	"	"	"	"	"
Ethylbenzene	0.0204	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	2.47	0.200	"	"	"	"	"
Xylenes, total	0.308	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4 115 % 70-130 " " "  
Surrogate: Toluene-d8 97.4 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 105 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0155	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021
2-Methylnaphthalene	0.032	0.00039	0.00067	"	"	"	"	"

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B12@8'  
12/9/2021 4:13:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112260-07 (Soil)

## PAH by 8270D SIM

Naphthalene	0.0123	0.000467	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021
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Surrogate: 2-Fluorobiphenyl	67.2 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	91.2 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	55.3 %		29-110			"	"	"

## Total Metals by 6020B

Barium	60.7	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021
Selenium	0.181	0.103	0.25	"	"	"	"	J

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**B13@8'**  
**12/9/2021 4:17:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-08 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 62.7 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.00306	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	0.983	0.200	"	"	"	"	"	
Xylenes, total	0.00532	0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 108 % 70-130 " " "  
Surrogate: Toluene-d8 100 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**B13@8'**  
**12/9/2021 4:17:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y112260-08 (Soil)**

## PAH by 8270D SIM

2-Methylnaphthalene	ND	0.00039	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	67.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	89.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	57.4 %		29-110			"	"	"	

## Total Metals by 6020B

Barium	63.5	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	ND	0.103	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**B14@7'**  
**12/9/2021 4:21:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-09 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 63.2 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 104 % 70-130 " " "  
Surrogate: Toluene-d8 99.9 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.9 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
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Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**B14@7'**  
**12/9/2021 4:21:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y112260-09 (Soil)**

## PAH by 8270D SIM

2-Methylnaphthalene	ND	0.00039	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	68.4 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	89.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	59 %		29-110			"	"	"	

## Total Metals by 6020B

Barium	75.1	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	ND	0.103	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE02@4'

12/9/2021 4:24:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-10 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	558		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	65.8 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	59.7		1.00	mg/kg	500	B1L0921	12/09/2021	12/13/2021	
1,3,5-Trimethylbenzene	53.7		1.00	"	"	"	"	"	
Benzene	3.03		1.00	"	"	"	"	"	
Ethylbenzene	20.3		1.00	"	"	"	"	"	
Gasoline Range Hydrocarbons	10.5		0.200	"	1	"	"	"	
Xylenes, total	313		1.00	"	500	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	115 %		70-130			"	"	12/10/2021	
Surrogate: Toluene-d8	100 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	168 %		70-130			"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.363	0.00033	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021	
2-Methylnaphthalene	0.613	0.00039	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE02@4'

12/9/2021 4:24:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112260-10 (Soil)

## PAH by 8270D SIM

Naphthalene	0.301	0.000467	0.00067	mg/Kg	1	L590038	12/14/2021	12/15/2021
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Surrogate: 2-Fluorobiphenyl	52.6 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	109 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	46.2 %		29-110			"	"	"

## Total Metals by 6020B

Barium	68.3	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021
Selenium	0.147	0.103	0.25	"	"	"	"	"

J

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE03@4'

12/9/2021 4:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y112260-11 (Soil)

## DRO/ORO by EPA 8015D

Diesel (C10-C28)	42.6		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	61.1 %		50-150			"	"	"	
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	6.44		1.00	mg/kg	500	B1L0921	12/09/2021	12/13/2021	
1,3,5-Trimethylbenzene	3.17		1.00	"	"	"	"	"	
Benzene	ND		0.00200	"	1	"	"	12/13/2021	U
Ethylbenzene	0.0413		0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.44		0.200	"	"	"	"	12/13/2021	
Xylenes, total	17.5		0.00200	"	"	"	"	12/13/2021	

Surrogate: 1,2-Dichloroethane-d4	172 %		70-130			"	"	12/10/2021	
Surrogate: Toluene-d8	97.8 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %		70-130			"	"	"	

## PAH by 8270D SIM

1-Methylnaphthalene	0.0949	0.00165	0.00335	mg/Kg	5	L590038	12/14/2021	12/15/2021	
2-Methylnaphthalene	0.208	0.00195	0.00335	"	"	"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE03@4'

12/9/2021 4:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112260-11 (Soil)

## PAH by 8270D SIM

Naphthalene	0.0449	0.00234	0.00335	mg/Kg	5	L590038	12/14/2021	12/15/2021
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Surrogate: 2-Fluorobiphenyl	64.1 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	88.7 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	49.1 %		29-110			"	"	"

## Total Metals by 6020B

Barium	78.6	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021
Selenium	ND	0.103	0.25	"	"	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE04@4'

12/9/2021 4:33:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-12 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	28.8		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 61.6 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B1L0921	12/09/2021	12/13/2021	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	0.221		0.200	"	"	"	"	12/13/2021	
Xylenes, total	ND		0.00200	"	"	"	"	12/13/2021	U

Surrogate: 1,2-Dichloroethane-d4 178 % 70-130 " " 12/10/2021  
Surrogate: Toluene-d8 94.8 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 71.0 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00165	0.00335	mg/Kg	5	L590122	12/15/2021	12/15/2021	
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NE04@4'

12/9/2021 4:33:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y112260-12 (Soil)

## PAH by 8270D SIM

2-Methylnaphthalene	ND	0.00195	0.00335	mg/Kg	5	L590122	12/15/2021	12/15/2021	
Naphthalene	ND	0.00234	0.00335	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	50.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	66.9 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	31.6 %		29-110			"	"	"	

## Total Metals by 6020B

Barium	84	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	ND	0.103	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE05@4'

12/9/2021 4:36:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-13 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 61.7 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.2 % 70-130 " " "  
Surrogate: Toluene-d8 99.3 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.2 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE05@4'

12/9/2021 4:36:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112260-13 (Soil)

## PAH by 8270D SIM

2-Methylnaphthalene	ND	0.00039	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	58.4 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	65 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	38.6 %		29-110			"	"	"	

## Total Metals by 6020B

Barium	72.2	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
Selenium	0.188	0.103	0.25	"	"	"	"	"	J

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE06@4'

12/9/2021 4:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-14 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	183		25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 63.8 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.207		0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	0.0249		0.00200	"	"	"	"	"	
Ethylbenzene	0.355		0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	82.4		10.0	"	50	"	"	12/10/2021	
Xylenes, total	0.00916		0.00200	"	1	"	"	12/10/2021	

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

Surrogate: Toluene-d8 99.8 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 364 % 70-130 " " " S-04

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0738	0.00033	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021	
2-Methylnaphthalene	0.155	0.00039	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE06@4'

12/9/2021 4:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112260-14 (Soil)

## PAH by 8270D SIM

Naphthalene	0.0166	0.000467	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021
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Surrogate: 2-Fluorobiphenyl	51.7 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	78 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	46.2 %		29-110			"	"	"

## Total Metals by 6020B

Barium	49.3	0.042	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021
Selenium	0.141	0.103	0.25	"	"	"	"	"

J

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SE03@4'

12/9/2021 4:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-15 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 58.7 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.00728	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	0.00408	0.00200	"	"	"	"	"	
Ethylbenzene	0.00296	0.00200	"	"	"	"	"	
Toluene	0.00416	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	2.55	0.200	"	"	"	"	"	
Xylenes, total	0.00210	0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 178 % 70-130 " " "  
Surrogate: Toluene-d8 96.4 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " "

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SE03@4'

12/9/2021 4:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-15 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	57.3 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	66.4 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	40.3 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SW02@4'

12/9/2021 4:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y112260-16 (Soil)

## Total Metals by 6020B

Selenium	0.122	0.103	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	J
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SW03@4'

12/9/2021 4:49:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y112260-17 (Soil)

## Total Metals by 6020B

Selenium	0.193	0.103	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	J
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW02@4'  
12/9/2021 4:52:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-18 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	78.3	25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 61.4 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0331	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	0.00692	0.00200	"	"	"	"	"	
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	17.2	0.200	"	"	"	"	"	
Xylenes, total	0.00328	0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 94.6 % 70-130 " " "

Surrogate: Toluene-d8 98.4 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 135 % 70-130 " " " S-04

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW02@4'  
12/9/2021 4:52:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-18 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0309	0.00033	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021	
2-Methylnaphthalene	0.057	0.00039	0.00067	"	"	"	"	"	
Naphthalene	0.00643	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	48.2 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	70.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	43 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	ND	0.103	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW03@4'  
12/9/2021 4:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112260-19 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	46.9	25.0	mg/kg	1	B1L0919	12/09/2021	12/10/2021	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 63.8 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0247	0.00200	mg/kg	1	B1L0921	12/09/2021	12/10/2021	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	15.7	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 95.9 % 70-130 " " "

Surrogate: Toluene-d8 97.6 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 138 % 70-130 " " " S-04

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW03@4'  
12/9/2021 4:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y112260-19 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00775	0.00033	0.00067	mg/Kg	1	L590122	12/15/2021	12/15/2021	
2-Methylnaphthalene	0.0131	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	51.8 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	72.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	44.5 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	0.126	0.103	0.25	mg/Kg	5	L589642	12/13/2021	12/14/2021	J
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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0919 - EPA 3550B</b>										
<b>Blank (B1L0919-BLK1)</b>					Prepared: 12/09/2021 Analyzed: 12/09/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	17		"	24.9		67.0	50-150			

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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0919 - EPA 3550B

LCS (B1L0919-BS1)

Prepared: 12/09/2021 Analyzed: 12/10/2021

Diesel (C10-C28)	932	50.0	mg/kg	1000		93.2	70-130			
Residual Range Organics (C28-C40)	931	200	"	1000		93.1	70-130			
Surrogate: o-Terphenyl	35		"	49.8		70.2	50-150			

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1L0919 - EPA 3550B

Matrix Spike (B1L0919-MS1)		Source: Y112242-01			Prepared: 12/09/2021 Analyzed: 12/10/2021					
Diesel (C10-C28)	837	50.0	mg/kg	1000	ND	83.7	70-130			
Residual Range Organics (C28-C40)	879	200	"	1000	ND	87.9	70-130			
Surrogate: o-Terphenyl	40		"	49.8		80.5	50-150			

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Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0919 - EPA 3550B</b>										
<b>Matrix Spike Dup (B1L0919-MSD1)</b>	<b>Source: Y112242-01</b>				Prepared: 12/09/2021 Analyzed: 12/10/2021					
Diesel (C10-C28)	835	50.0	mg/kg	1000	ND	83.5	70-130	0.274	35	
Residual Range Organics (C28-C40)	870	200	"	1000	ND	87.0	70-130	1.09	35	
Surrogate: o-Terphenyl	41		"	49.8		82.2	50-150			

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Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1L0921 - EPA 5030 (soil)										
Blank (B1L0921-BLK1)					Prepared: 12/09/2021 Analyzed: 12/09/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.2	70-130			

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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0921 - EPA 5030 (soil)</b>										
<b>LCS (B1L0921-BS1)</b>					Prepared: 12/09/2021 Analyzed: 12/09/2021					
1,2,4-Trimethylbenzene	0.110	0.00200	mg/kg	0.100		110	70-130			
Naphthalene	0.110	0.0100	"	0.100		110	70-130			
1,3,5-Trimethylbenzene	0.111	0.00200	"	0.100		111	70-130			
Benzene	0.112	0.00200	"	0.100		112	70-130			
Ethylbenzene	0.112	0.00200	"	0.100		112	70-130			
m,p-Xylene	0.221	0.00400	"	0.200		111	70-130			
o-Xylene	0.112	0.00200	"	0.100		112	70-130			
Toluene	0.109	0.00200	"	0.100		109	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	0.12		"	0.125		99.7	70-130			

Origins Laboratory, Inc.



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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0921 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1L0921-MS1)</b>		<b>Source: Y112242-01</b>			Prepared: 12/09/2021 Analyzed: 12/09/2021					
1,2,4-Trimethylbenzene	0.0915	0.00200	mg/kg	0.100	ND	91.5	70-130			
Naphthalene	0.0946	0.0100	"	0.100	ND	94.6	70-130			
1,3,5-Trimethylbenzene	0.0901	0.00200	"	0.100	ND	90.1	70-130			
Benzene	0.106	0.00200	"	0.100	ND	106	70-130			
Ethylbenzene	0.0995	0.00200	"	0.100	ND	99.5	70-130			
m,p-Xylene	0.198	0.00400	"	0.200	ND	99.0	70-130			
o-Xylene	0.101	0.00200	"	0.100	ND	101	70-130			
Toluene	0.0993	0.00200	"	0.100	ND	99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L0921 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1L0921-MSD1)</b>	<b>Source: Y112242-01</b>				Prepared: 12/09/2021 Analyzed: 12/09/2021					
1,2,4-Trimethylbenzene	0.0967	0.00200	mg/kg	0.100	ND	96.7	70-130	5.50	20	
Naphthalene	0.101	0.0100	"	0.100	ND	101	70-130	6.55	20	
1,3,5-Trimethylbenzene	0.0954	0.00200	"	0.100	ND	95.4	70-130	5.67	20	
Benzene	0.111	0.00200	"	0.100	ND	111	70-130	4.37	20	
Ethylbenzene	0.105	0.00200	"	0.100	ND	105	70-130	4.92	20	
m,p-Xylene	0.209	0.00400	"	0.200	ND	105	70-130	5.61	20	
o-Xylene	0.107	0.00200	"	0.100	ND	107	70-130	5.62	20	
Toluene	0.106	0.00200	"	0.100	ND	106	70-130	6.87	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L590122 - 3550B**

MSD (L 96317-MSD-L590122)		Source: Y112260-12			Prepared: 12/15/2021 Analyzed: 12/15/2021					
Naphthalene	0.0911	0.00234	mg/Kg	0.166	<0.00234	54.8	30-130	9	30	
1-Methylnaphthalene	0.0966	0.00165	"	0.166	<0.00165	58.1	30-130	8.5	30	
2-Methylnaphthalene	0.096	0.00195	"	0.166	<0.00195	57.8	30-130	7.2	30	
Surrogate: 4-Terphenyl-d14	68.8		"	0.331	220	68.8	33-122			
Surrogate: Nitrobenzene-d5	33.2		"	0.331	104	33.2	29-110			
Surrogate: 2-Fluorobiphenyl	54		"	0.331	166	54	33-115			
MS (L 96317-MS-L590122)		Source: Y112260-12			Prepared: 12/15/2021 Analyzed: 12/15/2021					
Naphthalene	0.0832	0.00234	mg/Kg	0.165	<0.00234	50.4	30-130			
2-Methylnaphthalene	0.0893	0.00195	"	0.165	<0.00195	54.1	30-130			
1-Methylnaphthalene	0.0887	0.00165	"	0.165	<0.00165	53.7	30-130			
Surrogate: Nitrobenzene-d5	30.2		"	0.33	104	30.2	29-110			
Surrogate: 4-Terphenyl-d14	74.5		"	0.33	220	74.5	33-122			
Surrogate: 2-Fluorobiphenyl	49.3		"	0.33	166	49.3	33-115			
LCS (LCS-L590122)					Prepared: 12/15/2021 Analyzed: 12/15/2021					
Naphthalene	0.111	0.000467	mg/Kg	0.167		66.4	30-130			
2-Methylnaphthalene	0.123	0.00039	"	0.167		73.6	30-130			
1-Methylnaphthalene	0.121	0.00033	"	0.167		72.4	30-130			
Surrogate: Nitrobenzene-d5	45.6		"	0.333		45.6	29-110			
Surrogate: 2-Fluorobiphenyl	64.2		"	0.333		64.2	33-115			
Surrogate: 4-Terphenyl-d14	72.3		"	0.333		72.3	33-122			

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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L590122 - 3550B**

**LRB (LRB-L590122)**

Prepared: 12/15/2021 Analyzed: 12/15/2021

Naphthalene	ND	0.00067	mg/Kg				-			
1-Methylnaphthalene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Surrogate: 4-Terphenyl-d14	78		"	0.333	78		33-122			
Surrogate: Nitrobenzene-d5	49.5		"	0.333	49.5		29-110			
Surrogate: 2-Fluorobiphenyl	70.8		"	0.333	70.8		33-115			

Origins Laboratory, Inc.



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4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L590038 - 3550B</b>										
<b>MSD (L 96313-MSD-L590038)</b>			<b>Source: Y112260-08</b>		Prepared: 12/14/2021 Analyzed: 12/15/2021					
Naphthalene	0.116	0.000467	mg/Kg	0.164	<0.000467	70.7	30-130	1.7	30	
1-Methylnaphthalene	0.119	0.00033	"	0.164	<0.000330	72.5	30-130	0.8	30	
2-Methylnaphthalene	0.119	0.00039	"	0.164	<0.000390	72.5	30-130	1.6	30	
Surrogate: 4-Terphenyl-d14	93.9		"	0.329	295	93.9	33-122			
Surrogate: 2-Fluorobiphenyl	66.2		"	0.329	222	66.2	33-115			
Surrogate: Nitrobenzene-d5	56.2		"	0.329	189	56.2	29-110			
<b>MS (L 96313-MS-L590038)</b>			<b>Source: Y112260-08</b>		Prepared: 12/14/2021 Analyzed: 12/15/2021					
Naphthalene	0.114	0.000467	mg/Kg	0.162	<0.000467	70.3	30-130			
2-Methylnaphthalene	0.117	0.00039	"	0.162	<0.000390	72.2	30-130			
1-Methylnaphthalene	0.118	0.00033	"	0.162	<0.000330	72.8	30-130			
Surrogate: 4-Terphenyl-d14	88.3		"	0.325	295	88.3	33-122			
Surrogate: Nitrobenzene-d5	53.8		"	0.325	189	53.8	29-110			
Surrogate: 2-Fluorobiphenyl	62.7		"	0.325	222	62.7	33-115			
<b>LCS (LCS-L590038)</b>			Prepared: 12/14/2021 Analyzed: 12/15/2021							
Naphthalene	0.122	0.000467	mg/Kg	0.167		73	30-130			
2-Methylnaphthalene	0.125	0.00039	"	0.167		74.8	30-130			
1-Methylnaphthalene	0.126	0.00033	"	0.167		75.4	30-130			
Surrogate: Nitrobenzene-d5	56.1		"	0.333		56.1	29-110			
Surrogate: 4-Terphenyl-d14	85.5		"	0.333		85.5	33-122			
Surrogate: 2-Fluorobiphenyl	70.2		"	0.333		70.2	33-115			
<b>LRB (LRB-L590038)</b>			Prepared: 12/14/2021 Analyzed: 12/15/2021							
1-Methylnaphthalene	ND	0.00067	mg/Kg			-				
2-Methylnaphthalene	ND	0.00067	"			-				
Naphthalene	ND	0.00067	"			-				
Surrogate: 4-Terphenyl-d14	72.6		"	0.333		72.6	33-122			

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PAH by 8270D SIM - Quality Control  
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L590038 - 3550B

LRB (LRB-L590038)

Prepared: 12/14/2021 Analyzed: 12/15/2021

Surrogate: 2-Fluorobiphenyl	61.2		mg/Kg	0.333		61.2	33-115			
Surrogate: Nitrobenzene-d5	49.8		"	0.333		49.8	29-110			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L589875 - 3550B**

MSD (L 95879-MSD-L589875)		Source: 95879			Prepared: 12/14/2021 Analyzed: 12/14/2021					
Naphthalene	0.101	0.000467	mg/Kg	0.163	<0.000467	61.9	30-130	1.9	30	
2-Methylnaphthalene	0.103	0.00039	"	0.163	<0.000390	63.1	30-130	1.9	30	
1-Methylnaphthalene	0.103	0.00033	"	0.163	<0.000330	63.1	30-130	1.9	30	
Surrogate: 2-Fluorobiphenyl	57.9		"	0.326	197	57.9	33-115			
Surrogate: Nitrobenzene-d5	45.7		"	0.326	161	45.7	29-110			
Surrogate: 4-Terphenyl-d14	71.4		"	0.326	239	71.4	33-122			

MS (L 95879-MS-L589875)		Source: 95879			Prepared: 12/14/2021 Analyzed: 12/14/2021					
Naphthalene	0.103	0.000467	mg/Kg	0.164	<0.000467	62.8	30-130			
2-Methylnaphthalene	0.105	0.00039	"	0.164	<0.000390	64	30-130			
1-Methylnaphthalene	0.105	0.00033	"	0.164	<0.000330	64	30-130			
Surrogate: Nitrobenzene-d5	45.8		"	0.329	161	45.8	29-110			
Surrogate: 4-Terphenyl-d14	72		"	0.329	239	72	33-122			
Surrogate: 2-Fluorobiphenyl	59.2		"	0.329	197	59.2	33-115			

LCS (LCS-L589875)		Prepared: 12/14/2021 Analyzed: 12/14/2021								
Naphthalene	0.0975	0.000467	mg/Kg	0.167		58.3	30-130			
2-Methylnaphthalene	0.0981	0.00039	"	0.167		58.7	30-130			
1-Methylnaphthalene	0.0991	0.00033	"	0.167		59.3	30-130			
Surrogate: 2-Fluorobiphenyl	59.4		"	0.333		59.4	33-115			
Surrogate: Nitrobenzene-d5	47.4		"	0.333		47.4	29-110			
Surrogate: 4-Terphenyl-d14	76.5		"	0.333		76.5	33-122			

LRB (LRB-L589875)		Prepared: 12/14/2021 Analyzed: 12/14/2021								
2-Methylnaphthalene	ND	0.00067	mg/Kg			-				
1-Methylnaphthalene	ND	0.00067	"			-				
Naphthalene	ND	0.00067	"			-				
Surrogate: 2-Fluorobiphenyl	59.4		"	0.333		59.4	33-115			

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PAH by 8270D SIM - Quality Control  
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L589875 - 3550B

LRB (LRB-L589875)

Prepared: 12/14/2021 Analyzed: 12/14/2021

Surrogate: 4-Terphenyl-d14	73.5		mg/Kg	0.333		73.5	33-122			
Surrogate: Nitrobenzene-d5	46.8		"	0.333		46.8	29-110			

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L589642 - 3050B</b>										
<b>MSD (L 96339-MSD-L589642)</b>			<b>Source: 96339</b>		Prepared: 12/13/2021 Analyzed: 12/14/2021					
Barium	191	0.042	mg/Kg	4.9	137	NR	75-125	9.3	80	*
Selenium	2.95	0.103	"	4.9	0.167	60	75-125	8.4	80	*
<b>MS (L 96339-MS-L589642)</b>			<b>Source: 96339</b>		Prepared: 12/13/2021 Analyzed: 12/16/2021					
Selenium	3.21	0.103	mg/Kg	4.89	0.167	66	75-125			*
Barium	174	0.042	"	4.89	137	756	75-125			*
<b>LCS (LCS-L589642)</b>			Prepared: 12/13/2021 Analyzed: 12/14/2021							
Barium	4.86	0.042	mg/Kg	5		97	80-120			
Selenium	5.34	0.103	"	5		107	80-120			
<b>LRB (LRB-L589642)</b>			Prepared: 12/13/2021 Analyzed: 12/16/2021							
Selenium	ND	0.25	mg/Kg				-			
Barium	0.0497	0.25	"				-			J

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L589538 - 3050B</b>										
<b>MSD (L 96307-MSD-L589538)</b>			<b>Source: Y112260-02</b>		Prepared: 12/13/2021 Analyzed: 12/13/2021					
Selenium	4.01	0.103	mg/Kg	4.95	<0.103	81	75-125	9.1	80	
Barium	49	0.042	"	4.95	44.7	87	75-125	9.5	80	
<b>MS (L 96307-MS-L589538)</b>			<b>Source: Y112260-02</b>		Prepared: 12/13/2021 Analyzed: 12/13/2021					
Selenium	3.66	0.103	mg/Kg	4.7	<0.103	78	75-125			
Barium	53.9	0.042	"	4.7	44.7	196	75-125			*
<b>LCS (LCS-L589538)</b>			Prepared: 12/13/2021 Analyzed: 12/13/2021							
Barium	4.96	0.042	mg/Kg	5		99	80-120			
Selenium	4.55	0.103	"	5		91	80-120			
<b>LRB (LRB-L589538)</b>			Prepared: 12/13/2021 Analyzed: 12/13/2021							
Barium	0.065	0.25	mg/Kg				-			J
Selenium	ND	0.25	"				-			

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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



December 30, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. December 21, 2021. This project is associated with Origins project number Y112503-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B15@10'	Y112503-01	Soil	December 21, 2021 12:00	12/21/2021 15:30
B16@10'	Y112503-02	Soil	December 21, 2021 12:05	12/21/2021 15:30
B17@10'	Y112503-03	Soil	December 21, 2021 12:10	12/21/2021 15:30
B18@10'	Y112503-04	Soil	December 21, 2021 12:15	12/21/2021 15:30

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

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Y112503

page 1 of 1

**ORIGINS**  
LABORATORY, INC

Client: WSP  
Address: 4600 W 60th Ave  
Arvada CO 80003  
Telephone Number:  
Email Address: KMG Group  
Project Manager: Brian Sulzberger  
Project Name: Berig 17-35  
Project Number: 31403177.138.03  
Samples Collected By: RJ

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air	1,2,4-TMS	1,3,5-TMS	Benzene	1-methylphenol		2-methylphenol
B15 B12e10	12-21-21	1200	1	X				X							X	1
B16 B12e10		1205	1	X				X							X	2
B17 B12e10		1210	1	X				X							X	3
B18 B12e10		1215	2	X				X							X	4
																5
																6
																7
																8
																9
																10
Revised per the original from David on 12/24/21																
Relinquished By: <i>[Signature]</i>	Date: 12-21-21	Time: 1530						Received By: <i>[Signature]</i>	Date: 12-21-21	Time: 1530						
Relinquished By: <i>[Signature]</i>	Date:	Time:						Received By:	Date:	Time:						

Date Results Needed

Temp Received- 3.1

Origins Laboratory, Inc.

*[Signature]*

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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

Sample Receipt Checklist

Origins Work Order: Y112503

Client: WSP

Client Project ID: Berig 17-35

Checklist Completed by: SG

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

Date/time completed: 12/21/21

Airbill #: N/A

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

Cooler Number/Temperature: 1 3.1 °C        °C        °C (Describe)        °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager)

Date/Time Reviewed 12/21/21

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B15@10'

12/21/2021 12:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y112503-01 (Soil)

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L591592	12/22/2021	12/27/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	60.1 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	72.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	48.6 %		29-110			"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B16@10'

12/21/2021 12:05:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112503-02 (Soil)

## PAH by 8270D SIM

1-Methylnaphthalene	0.000935	0.00033	0.00067	mg/Kg	1	L591592	12/22/2021	12/27/2021
---------------------	----------	---------	---------	-------	---	---------	------------	------------

Surrogate: 2-Fluorobiphenyl	65.7 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	72.9 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	48.3 %	29-110	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B17@10'

12/21/2021 12:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y112503-03 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L2126	12/21/2021	12/21/2021	U
------------------------	----	---------	-------	---	---------	------------	------------	---

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	97.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.5 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B18@10'

12/21/2021 12:15:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112503-04 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L2126	12/21/2021	12/22/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	96.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L591592	12/22/2021	12/27/2021
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	59 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	66.3 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	44.4 %	29-110	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L2126 - EPA 5030 (soil)</b>										
<b>Blank (B1L2126-BLK1)</b>					Prepared: 12/21/2021 Analyzed: 12/21/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.12		"	0.125		96.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.

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WSP USA  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L2126 - EPA 5030 (soil)</b>										
<b>LCS (B1L2126-BS1)</b>					Prepared: 12/21/2021 Analyzed: 12/21/2021					
1,2,4-Trimethylbenzene	0.107	0.00200	mg/kg	0.100		107	70-130			
Naphthalene	0.102	0.0100	"	0.100		102	70-130			
1,3,5-Trimethylbenzene	0.106	0.00200	"	0.100		106	70-130			
Benzene	0.103	0.00200	"	0.100		103	70-130			
Ethylbenzene	0.105	0.00200	"	0.100		105	70-130			
m,p-Xylene	0.212	0.00400	"	0.200		106	70-130			
o-Xylene	0.104	0.00200	"	0.100		104	70-130			
Toluene	0.102	0.00200	"	0.100		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L2126 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1L2126-MS1)</b>		<b>Source: Y112499-01</b>			Prepared: 12/21/2021 Analyzed: 12/21/2021					
1,2,4-Trimethylbenzene	0.00804	0.00200	mg/kg	0.100	ND	8.04	70-130			QM-07
Naphthalene	0.00898	0.0100	"	0.100	0.00170	7.28	70-130			QM-07, U
1,3,5-Trimethylbenzene	0.00792	0.00200	"	0.100	ND	7.92	70-130			QM-07
Benzene	0.00854	0.00200	"	0.100	ND	8.54	70-130			QM-07
Ethylbenzene	0.00836	0.00200	"	0.100	ND	8.36	70-130			QM-07
m,p-Xylene	0.0165	0.00400	"	0.200	ND	8.27	70-130			QM-07
o-Xylene	0.00818	0.00200	"	0.100	ND	8.18	70-130			QM-07
Toluene	0.00820	0.00200	"	0.100	ND	8.20	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1L2126 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1L2126-MSD1)</b>		<b>Source: Y112499-01</b>			Prepared: 12/21/2021 Analyzed: 12/21/2021					
1,2,4-Trimethylbenzene	0.0368	0.00200	mg/kg	0.100	ND	36.8	70-130	128	20	QM-07
Naphthalene	0.0387	0.0100	"	0.100	0.00170	37.0	70-130	125	20	QM-07
1,3,5-Trimethylbenzene	0.0362	0.00200	"	0.100	ND	36.2	70-130	128	20	QM-07
Benzene	0.0374	0.00200	"	0.100	ND	37.4	70-130	126	20	QM-07
Ethylbenzene	0.0366	0.00200	"	0.100	ND	36.6	70-130	126	20	QM-07
m,p-Xylene	0.0733	0.00400	"	0.200	ND	36.7	70-130	126	20	QM-07
o-Xylene	0.0364	0.00200	"	0.100	ND	36.4	70-130	127	20	QM-07
Toluene	0.0364	0.00200	"	0.100	ND	36.4	70-130	126	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591592 - 3550B**

<b>MSD (L 86189-MSD-L591592)</b>		<b>Source: 86189</b>			<b>Prepared: 12/22/2021 Analyzed: 12/27/2021</b>					
2-Methylnaphthalene	0.167	0.00039	mg/Kg	0.164	0.0684	60.1	30-130	6.1	30	
Naphthalene	0.124	0.000467	"	0.164	0.0206	63	30-130	5.8	30	
1-Methylnaphthalene	0.153	0.00033	"	0.164	0.0332	73	30-130	7.4	30	
Surrogate: 2-Fluorobiphenyl	59.1		"	0.328	190	59.1	33-115			
Surrogate: 4-Terphenyl-d14	71		"	0.328	225	71	33-122			
Surrogate: Nitrobenzene-d5	44.5		"	0.328	145	44.5	29-110			
<b>MS (L 86189-MS-L591592)</b>		<b>Source: 86189</b>			<b>Prepared: 12/22/2021 Analyzed: 12/27/2021</b>					
1-Methylnaphthalene	0.142	0.00033	mg/Kg	0.166	0.0332	65.5	30-130			
Naphthalene	0.117	0.000467	"	0.166	0.0206	58	30-130			
2-Methylnaphthalene	0.157	0.00039	"	0.166	0.0684	53.3	30-130			
Surrogate: Nitrobenzene-d5	46.9		"	0.332	145	46.9	29-110			
Surrogate: 4-Terphenyl-d14	69.8		"	0.332	225	69.8	33-122			
Surrogate: 2-Fluorobiphenyl	59.9		"	0.332	190	59.9	33-115			
<b>LCS (LCS-L591592)</b>					<b>Prepared: 12/22/2021 Analyzed: 12/27/2021</b>					
1-Methylnaphthalene	0.115	0.00033	mg/Kg	0.167		68.8	30-130			
2-Methylnaphthalene	0.116	0.00039	"	0.167		69.4	30-130			
Naphthalene	0.106	0.000467	"	0.167		63.4	30-130			
Surrogate: 2-Fluorobiphenyl	60.6		"	0.333		60.6	33-115			
Surrogate: 4-Terphenyl-d14	69.6		"	0.333		69.6	33-122			
Surrogate: Nitrobenzene-d5	48.3		"	0.333		48.3	29-110			

Origins Laboratory, Inc.

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WSP USA  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L591592 - 3550B

LRB (LRB-L591592)

Prepared: 12/22/2021 Analyzed: 12/27/2021

1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	52.2		"	0.333	52.2		29-110			
Surrogate: 2-Fluorobiphenyl	59.7		"	0.333	59.7		33-115			
Surrogate: 4-Terphenyl-d14	69.9		"	0.333	69.9		33-122			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



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January 19, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. January 10, 2022. This project is associated with Origins project number Y201140-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NW04@4'	Y201140-01	Soil	January 10, 2022 14:20	01/10/2022 17:28
NE07@4'	Y201140-02	Soil	January 10, 2022 14:24	01/10/2022 17:28
NE08@4'	Y201140-03	Soil	January 10, 2022 14:29	01/10/2022 17:28
NE09@4'	Y201140-04	Soil	January 10, 2022 14:33	01/10/2022 17:28
NE10@4'	Y201140-05	Soil	January 10, 2022 14:39	01/10/2022 17:28
B19@8'	Y201140-06	Soil	January 10, 2022 14:43	01/10/2022 17:28
B20@8'	Y201140-07	Soil	January 10, 2022 14:47	01/10/2022 17:28
B21@8'	Y201140-08	Soil	January 10, 2022 14:53	01/10/2022 17:28
B22@8'	Y201140-09	Soil	January 10, 2022 14:59	01/10/2022 17:28
SE04@4'	Y201140-10	Soil	January 10, 2022 15:06	01/10/2022 17:28
SW06@4'	Y201140-11	Soil	January 10, 2022 15:17	01/10/2022 17:28

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*







Page 4 of 35

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: Y201140

Client: WSP

Client Project ID: Berig UPRR 17-35

Checklist Completed by: SG

Shipped Via: HD

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

Date/Time completed: 1/10/22

Airbill #: N/A

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

Water

Other:

Cooler Number/Temperature: 1 5.7 °C

/ °C

/ °C

(Describe)

°C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 1/10/22

Origins Laboratory, Inc.

Jefe Pellegrini

Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW04@4'  
1/10/2022 2:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201140-01 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2A1215	01/12/2022	01/12/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 66.6 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0352	0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	0.00272	0.00200	"	"	"	"	"	
Ethylbenzene	0.0103	0.00200	"	"	"	"	"	
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	13.8	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 93.3 % 70-130 " " "

Surrogate: Toluene-d8 95.0 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 158 % 70-130 " " " S-GC

**PAH by 8270D SIM**

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW04@4'  
1/10/2022 2:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y201140-01 (Soil)

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0283	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022	
2-Methylnaphthalene	0.0552	0.000645	0.00067	"	"	"	"	"	
Naphthalene	0.00739	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	55.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	62 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	50.6 %		29-110			"	"	"	

**Total Metals by 6020B**

Selenium	0.146	0.103	0.25	mg/Kg	5	L594237	01/12/2022	01/14/2022	J
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Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE07@4'  
1/10/2022 2:24:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201140-02 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	U
Benzene	0.00312		0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	92.0 %		70-130			"	"	"	
Surrogate: Toluene-d8	100 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %		70-130			"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00136	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022	
2-Methylnaphthalene	0.00134	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	55.6 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	63.1 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	52.6 %		29-110			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE08@4'  
1/10/2022 2:29:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201140-03 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2A1033	01/10/2022	01/11/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 90.1 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.981		0.100	mg/kg	50	B2A1032	01/10/2022	01/11/2022	
1,3,5-Trimethylbenzene	0.872		0.100	"	"	"	"	"	
Benzene	0.348		0.00200	"	1	"	"	01/11/2022	
Ethylbenzene	0.160		0.100	"	50	"	"	01/11/2022	
Xylenes, total	2.75		0.100	"	"	"	"	"	
Gasoline Range Hydrocarbons	127		10.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 88.2 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 106 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0147	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022	
2-Methylnaphthalene	0.0226	0.000645	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NE08@4'

1/10/2022 2:29:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y201140-03 (Soil)

## PAH by 8270D SIM

Naphthalene	0.00806	0.000484	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022
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Surrogate: 2-Fluorobiphenyl	54 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	60.7 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	51.8 %	29-110	"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE09@4'  
1/10/2022 2:33:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201140-04 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	91.6 %	70-130	"	"	"
Surrogate: Toluene-d8	98.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.7 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	51.4 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	58.7 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	51.1 %	29-110	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NE10@4'

1/10/2022 2:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y201140-05 (Soil)

## Total Metals by 6020B

Barium	94	0.042	0.25	mg/Kg	5	L594238	01/12/2022	01/14/2022
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Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B19@8'

1/10/2022 2:43:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201140-06 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	88.3 %	70-130	"	"	"
Surrogate: Toluene-d8	99.1 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.5 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	57.6 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	60.4 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	56.4 %	29-110	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B20@8'

1/10/2022 2:47:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201140-07 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	U
Benzene	0.00250	0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	88.8 %	70-130	"	"	"
Surrogate: Toluene-d8	99.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.6 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	57 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	59.8 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	54.6 %	29-110	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B21@8'

1/10/2022 2:53:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y201140-08 (Soil)

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2A1033	01/10/2022	01/11/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 84.1 % 50-150 " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0198		0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	
1,3,5-Trimethylbenzene	0.0171		0.00200	"	"	"	"	"	
Xylenes, total	0.0348		0.00200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 87.9 % 70-130 " " "

Surrogate: Toluene-d8 99.0 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 107 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L594491	01/14/2022	01/17/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Surrogate: 2-Fluorobiphenyl	59.9 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	60.2 %		33-122			"	"	"	

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B21@8'

1/10/2022 2:53:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y201140-08 (Soil)

## PAH by 8270D SIM

Surrogate: Nitrobenzene-d5

57.4 %

29-110

L5944  
91

01/14/2022

01/17/2022

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B22@8'

1/10/2022 2:59:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y201140-09 (Soil)

## Total Metals by 6020B

Barium	59.9	0.042	0.25	mg/Kg	5	L594238	01/12/2022	01/14/2022
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SE04@4'

1/10/2022 3:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y201140-10 (Soil)

## GBTEX+TMBs by 8260D

Benzene	ND	0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	U
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Surrogate: 1,2-Dichloroethane-d4	89.8 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.9 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SW06@4'

1/10/2022 3:17:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y201140-11 (Soil)

## GBTEX+TMBs by 8260D

Benzene	ND	0.00200	mg/kg	1	B2A1032	01/10/2022	01/11/2022	U
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Surrogate: 1,2-Dichloroethane-d4	92.6 %	70-130	"	"	"
Surrogate: Toluene-d8	98.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.3 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1032 - EPA 5030 (soil)</b>										
<b>Blank (B2A1032-BLK1)</b>					Prepared: 01/10/2022 Analyzed: 01/11/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.13		"	0.125		107	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.8	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1032 - EPA 5030 (soil)</b>										
<b>LCS (B2A1032-BS1)</b>					Prepared: 01/10/2022 Analyzed: 01/11/2022					
1,2,4-Trimethylbenzene	0.119	0.00200	mg/kg	0.100		119	70-130			
Naphthalene	0.0413	0.0100	"	0.100		41.3	70-130			J-02
1,3,5-Trimethylbenzene	0.120	0.00200	"	0.100		120	70-130			
Benzene	0.113	0.00200	"	0.100		113	70-130			
Ethylbenzene	0.120	0.00200	"	0.100		120	70-130			
m,p-Xylene	0.253	0.00400	"	0.200		126	70-130			
o-Xylene	0.123	0.00200	"	0.100		123	70-130			
Toluene	0.112	0.00200	"	0.100		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		106	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1032 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2A1032-MS1)</b>		<b>Source: Y201139-01</b>			Prepared: 01/10/2022 Analyzed: 01/11/2022					
1,2,4-Trimethylbenzene	0.113	0.00200	mg/kg	0.100	0.000700	112	70-130			
Naphthalene	0.115	0.0100	"	0.100	ND	115	70-130			
1,3,5-Trimethylbenzene	0.113	0.00200	"	0.100	0.000560	112	70-130			
Benzene	0.112	0.00200	"	0.100	ND	112	70-130			
Ethylbenzene	0.110	0.00200	"	0.100	ND	110	70-130			
m,p-Xylene	0.230	0.00400	"	0.200	0.00206	114	70-130			
o-Xylene	0.110	0.00200	"	0.100	ND	110	70-130			
Toluene	0.114	0.00200	"	0.100	ND	114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.4	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1032 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2A1032-MSD1)</b>		<b>Source: Y201139-01</b>			Prepared: 01/10/2022 Analyzed: 01/11/2022					
1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100	0.000700	105	70-130	6.78	20	
Naphthalene	0.108	0.0100	"	0.100	ND	108	70-130	6.81	20	
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100	0.000560	104	70-130	7.85	20	
Benzene	0.110	0.00200	"	0.100	ND	110	70-130	1.67	20	
Ethylbenzene	0.105	0.00200	"	0.100	ND	105	70-130	4.37	20	
m,p-Xylene	0.219	0.00400	"	0.200	0.00206	109	70-130	4.59	20	
o-Xylene	0.104	0.00200	"	0.100	ND	104	70-130	5.14	20	
Toluene	0.112	0.00200	"	0.100	ND	112	70-130	2.11	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.0	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1033 - EPA 3550B</b>										
<b>Blank (B2A1033-BLK1)</b>					Prepared: 01/10/2022 Analyzed: 01/11/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	22		"	24.9		90.3	50-150			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2A1033 - EPA 3550B

### LCS (B2A1033-BS1)

Prepared: 01/10/2022 Analyzed: 01/11/2022

Diesel (C10-C28)	824	50.0	mg/kg	1000		82.4	70-130			
Residual Range Organics (C28-C40)	797	200	"	1000		79.7	70-130			
Surrogate: o-Terphenyl	38		"	49.8		77.0	50-150			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B2A1033 - EPA 3550B

Matrix Spike (B2A1033-MS1)		Source: Y201139-01			Prepared: 01/10/2022 Analyzed: 01/11/2022					
Diesel (C10-C28)	949	50.0	mg/kg	1000	ND	94.9	70-130			
Residual Range Organics (C28-C40)	1000	200	"	1000	ND	100	70-130			
Surrogate: o-Terphenyl	44		"	49.8		89.0	50-150			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2A1033 - EPA 3550B

Matrix Spike Dup (B2A1033-MSD1)		Source: Y201139-01			Prepared: 01/10/2022 Analyzed: 01/11/2022					
Diesel (C10-C28)	955	50.0	mg/kg	1000	ND	95.5	70-130	0.616	35	
Residual Range Organics (C28-C40)	994	200	"	1000	ND	99.4	70-130	0.640	35	
Surrogate: o-Terphenyl	46		"	49.8		93.4	50-150			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2A1215 - EPA 3550B										
Blank (B2A1215-BLK1)					Prepared: 01/12/2022 Analyzed: 01/12/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		93.9	50-150			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2A1215 - EPA 3550B

### LCS (B2A1215-BS1)

Prepared: 01/12/2022 Analyzed: 01/12/2022

Diesel (C10-C28)	912	50.0	mg/kg	1000		91.2	70-130			
Residual Range Organics (C28-C40)	1140	200	"	1000		114	70-130			
Surrogate: o-Terphenyl	38		"	49.8		76.1	50-150			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2A1215 - EPA 3550B

Matrix Spike (B2A1215-MS1)		Source: Y201140-01			Prepared: 01/12/2022 Analyzed: 01/12/2022					
Diesel (C10-C28)	934	50.0	mg/kg	1000	ND	93.4	70-130			
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	70-130			
Surrogate: o-Terphenyl	36		"	49.8		71.4	50-150			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B2A1215 - EPA 3550B

Matrix Spike Dup (B2A1215-MSD1)		Source: Y201140-01			Prepared: 01/12/2022 Analyzed: 01/12/2022					
Diesel (C10-C28)	1170	50.0	mg/kg	1000	ND	117	70-130	22.2	35	
Residual Range Organics (C28-C40)	767	200	"	1000	ND	76.7	70-130	27.5	35	
Surrogate: o-Terphenyl	44		"	49.8		88.4	50-150			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## PAH by 8270D SIM - Quality Control

### Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch L594491 - 3550B

MSD (L 90076-MSD-L594491)			Source: 90076			Prepared: 01/14/2022 Analyzed: 01/17/2022				
1-Methylnaphthalene	0.107	0.000364	mg/Kg	0.166	<0.000364	64.4	30-130	0	30	
2-Methylnaphthalene	0.109	0.000645	"	0.166	<0.000645	65.6	30-130	1.8	30	
Naphthalene	0.103	0.000484	"	0.166	<0.000484	62	30-130	1.9	30	
Surrogate: 2-Fluorobiphenyl	63.1		"	0.331	209	63.1	33-115			
Surrogate: 4-Terphenyl-d14	63.1		"	0.331	196	63.1	33-122			
Surrogate: Nitrobenzene-d5	56.4		"	0.331	198	56.4	29-110			
MS (L 90076-MS-L594491)			Source: 90076			Prepared: 01/14/2022 Analyzed: 01/17/2022				
1-Methylnaphthalene	0.107	0.000364	mg/Kg	0.163	<0.000364	65.6	30-130			
2-Methylnaphthalene	0.107	0.000645	"	0.163	<0.000645	65.6	30-130			
Naphthalene	0.105	0.000484	"	0.163	<0.000484	64.4	30-130			
Surrogate: Nitrobenzene-d5	56.2		"	0.327	198	56.2	29-110			
Surrogate: 4-Terphenyl-d14	62.9		"	0.327	196	62.9	33-122			
Surrogate: 2-Fluorobiphenyl	64.8		"	0.327	209	64.8	33-115			
LCS (LCS-L594491)			Prepared: 01/14/2022 Analyzed: 01/17/2022							
Naphthalene	0.113	0.000484	mg/Kg	0.167		67.6	30-130			
2-Methylnaphthalene	0.116	0.000645	"	0.167		69.4	30-130			
1-Methylnaphthalene	0.115	0.000364	"	0.167		68.8	30-130			
Surrogate: 4-Terphenyl-d14	63.3		"	0.333		63.3	33-122			
Surrogate: 2-Fluorobiphenyl	65.7		"	0.333		65.7	33-115			
Surrogate: Nitrobenzene-d5	57.3		"	0.333		57.3	29-110			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L594491 - 3550B

LRB (LRB-L594491)

Prepared: 01/14/2022 Analyzed: 01/17/2022

1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
Naphthalene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	54.3		"	0.333	54.3		29-110			
Surrogate: 4-Terphenyl-d14	57.6		"	0.333	57.6		33-122			
Surrogate: 2-Fluorobiphenyl	57.9		"	0.333	57.9		33-115			

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WSP USA  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L594237 - 3050B</b>										
<b>MSD (L 90078-MSD-L594237)</b>	<b>Source: 90078</b>				Prepared: 01/12/2022 Analyzed: 01/14/2022					
Selenium	3.66	0.103	mg/Kg	4.87	<0.103	75	75-125	3	80	
<b>MS (L 90078-MS-L594237)</b>	<b>Source: 90078</b>				Prepared: 01/12/2022 Analyzed: 01/14/2022					
Selenium	3.55	0.103	mg/Kg	4.78	<0.103	74	75-125			*
<b>LCS (LCS-L594237)</b>	Prepared: 01/12/2022 Analyzed: 01/14/2022									
Selenium	5.01	0.103	mg/Kg	5		100	80-120			
<b>LRB (LRB-L594237)</b>	Prepared: 01/12/2022 Analyzed: 01/14/2022									
Selenium	ND	0.25	mg/Kg				-			
<b>Batch L594238 - 3050B</b>										
<b>MSD (L 90100-MSD-L594238)</b>	<b>Source: Y201140-09</b>				Prepared: 01/12/2022 Analyzed: 01/14/2022					
Barium	66.1	0.042	mg/Kg	4.83	59.9	128	75-125	4.8	80	*
<b>MS (L 90100-MS-L594238)</b>	<b>Source: Y201140-09</b>				Prepared: 01/12/2022 Analyzed: 01/14/2022					
Barium	63	0.042	mg/Kg	4.67	59.9	66	75-125			*
<b>LCS (LCS-L594238)</b>	Prepared: 01/12/2022 Analyzed: 01/14/2022									
Barium	4.83	0.042	mg/Kg	5		97	80-120			
<b>LRB (LRB-L594238)</b>	Prepared: 01/12/2022 Analyzed: 01/14/2022									
Barium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## Notes and Definitions

U Sample is Non-Detect.

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

J-02 Reported value failed to meet established quality control criteria for the precision accuracy.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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January 19, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. January 12, 2022. This project is associated with Origins project number Y201203-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B23@9'	Y201203-01	Soil	January 12, 2022 11:51	01/12/2022 18:26

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Page 3 of 12

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: Y201203

Client: WSP

Client Project ID: Berig 17-35

Checklist Completed by: SG

Shipped Via: HD

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

Date/time completed: 1/12/22

Airbill #: N/A

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

☐ Water

☐ Other:

(Describe)

Cooler Number/Temperature: 1 5.4 °C 1 °C 1 °C 1 °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 1/12/22

Origins Laboratory, Inc.

[Signature]

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B23@9'

1/12/2022 11:51:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y201203-01 (Soil)

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1227	01/12/2022	01/13/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	97.1 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L594658	01/14/2022	01/17/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	62.3 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	73.9 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	61.4 %	29-110	"	"	"

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1227 - EPA 5030 (soil)</b>										
<b>Blank (B2A1227-BLK1)</b>					Prepared: 01/12/2022 Analyzed: 01/12/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1227 - EPA 5030 (soil)</b>										
<b>LCS (B2A1227-BS1)</b>					Prepared: 01/12/2022 Analyzed: 01/12/2022					
1,2,4-Trimethylbenzene	0.0941	0.00200	mg/kg	0.100		94.1	70-130			
Naphthalene	0.0927	0.0100	"	0.100		92.7	70-130			
1,3,5-Trimethylbenzene	0.0931	0.00200	"	0.100		93.1	70-130			
Benzene	0.0939	0.00200	"	0.100		93.9	70-130			
Ethylbenzene	0.0916	0.00200	"	0.100		91.6	70-130			
m,p-Xylene	0.188	0.00400	"	0.200		94.0	70-130			
o-Xylene	0.0928	0.00200	"	0.100		92.8	70-130			
Toluene	0.0918	0.00200	"	0.100		91.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.8	70-130			

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Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1227 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2A1227-MS1)</b>		<b>Source: Y201197-01</b>			Prepared: 01/12/2022 Analyzed: 01/13/2022					
1,2,4-Trimethylbenzene	0.0812	0.00200	mg/kg	0.100	0.000920	80.2	70-130			
Naphthalene	0.0731	0.0100	"	0.100	0.00252	70.6	70-130			
1,3,5-Trimethylbenzene	0.0794	0.00200	"	0.100	0.000440	79.0	70-130			
Benzene	0.0845	0.00200	"	0.100	ND	84.5	70-130			
Ethylbenzene	0.0824	0.00200	"	0.100	0.000420	82.0	70-130			
m,p-Xylene	0.169	0.00400	"	0.200	0.00218	83.4	70-130			
o-Xylene	0.0831	0.00200	"	0.100	0.000760	82.4	70-130			
Toluene	0.0817	0.00200	"	0.100	0.000980	80.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1227 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2A1227-MSD1)</b>		<b>Source: Y201197-01</b>			Prepared: 01/12/2022 Analyzed: 01/13/2022					
1,2,4-Trimethylbenzene	0.0747	0.00200	mg/kg	0.100	0.000920	73.8	70-130	8.29	20	
Naphthalene	0.0683	0.0100	"	0.100	0.00252	65.8	70-130	6.76	20	QM-07
1,3,5-Trimethylbenzene	0.0723	0.00200	"	0.100	0.000440	71.9	70-130	9.33	20	
Benzene	0.0794	0.00200	"	0.100	ND	79.4	70-130	6.32	20	
Ethylbenzene	0.0765	0.00200	"	0.100	0.000420	76.1	70-130	7.40	20	
m,p-Xylene	0.157	0.00400	"	0.200	0.00218	77.7	70-130	7.02	20	
o-Xylene	0.0771	0.00200	"	0.100	0.000760	76.4	70-130	7.49	20	
Toluene	0.0790	0.00200	"	0.100	0.000980	78.0	70-130	3.41	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L594658 - 3550B**

<b>MSD (L 96013-MSD-L594658)</b>		<b>Source: Y201203-01</b>			<b>Prepared: 01/14/2022 Analyzed: 01/17/2022</b>					
2-Methylnaphthalene	0.0853	0.000645	mg/Kg	0.165	<0.000645	51.6	30-130	0.4	30	
Naphthalene	0.0818	0.000484	"	0.165	<0.000484	49.5	30-130	2.1	30	
1-Methylnaphthalene	0.085	0.000364	"	0.165	<0.000364	51.5	30-130	0.2	30	
Surrogate: 2-Fluorobiphenyl	51.2		"	0.33	205	51.2	33-115			
Surrogate: 4-Terphenyl-d14	65.7		"	0.33	243	65.7	33-122			
Surrogate: Nitrobenzene-d5	56		"	0.33	202	56	29-110			
<b>MS (L 96013-MS-L594658)</b>		<b>Source: Y201203-01</b>			<b>Prepared: 01/14/2022 Analyzed: 01/17/2022</b>					
1-Methylnaphthalene	0.0848	0.000364	mg/Kg	0.164	<0.000364	51.7	30-130			
Naphthalene	0.0836	0.000484	"	0.164	<0.000484	50.9	30-130			
2-Methylnaphthalene	0.0849	0.000645	"	0.164	<0.000645	51.7	30-130			
Surrogate: Nitrobenzene-d5	55.9		"	0.329	202	55.9	29-110			
Surrogate: 4-Terphenyl-d14	68.9		"	0.329	243	68.9	33-122			
Surrogate: 2-Fluorobiphenyl	52.2		"	0.329	205	52.2	33-115			
<b>LCS (LCS-L594658)</b>		<b>Prepared: 01/14/2022 Analyzed: 01/17/2022</b>								
1-Methylnaphthalene	0.0876	0.000364	mg/Kg	0.167		52.4	30-130			
2-Methylnaphthalene	0.0872	0.000645	"	0.167		52.2	30-130			
Naphthalene	0.0861	0.000484	"	0.167		51.5	30-130			
Surrogate: 2-Fluorobiphenyl	56.4		"	0.333		56.4	33-115			
Surrogate: 4-Terphenyl-d14	71.7		"	0.333		71.7	33-122			
Surrogate: Nitrobenzene-d5	62.4		"	0.333		62.4	29-110			

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L594658 - 3550B**

**LRB (LRB-L594658)**

Prepared: 01/14/2022 Analyzed: 01/17/2022

1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	57		"	0.333	57		29-110			
Surrogate: 2-Fluorobiphenyl	59.7		"	0.333	59.7		33-115			
Surrogate: 4-Terphenyl-d14	67.8		"	0.333	67.8		33-122			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



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February 03, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig UPRR 17-35 (FL Release)****Project Number - 31403177.00.138.05**

Attached are your analytical results for KMG - Berig UPRR 17-35 (FL Release) received by Origins Laboratory, Inc. January 26, 2022. This project is associated with Origins project number Y201458-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.00.138.05

Project: KMG - Berig UPRR 17-35 (FL Release)

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NW05@4'	Y201458-01	Soil	January 26, 2022 15:16	01/26/2022 17:50
NW06@4'	Y201458-02	Soil	January 26, 2022 15:20	01/26/2022 17:50
NW07@4'	Y201458-03	Soil	January 26, 2022 15:25	01/26/2022 17:50
NW08@4'	Y201458-04	Soil	January 26, 2022 15:30	01/26/2022 17:50
NE11@4'	Y201458-05	Soil	January 26, 2022 15:36	01/26/2022 17:50
NE12@4'	Y201458-06	Soil	January 26, 2022 15:40	01/26/2022 17:50
NE13@4'	Y201458-07	Soil	January 26, 2022 15:45	01/26/2022 17:50
SE06@4'	Y201458-08	Soil	January 26, 2022 15:50	01/26/2022 17:50
B24@9'	Y201458-09	Soil	January 26, 2022 15:56	01/26/2022 17:50
B25@9'	Y201458-10	Soil	January 26, 2022 16:00	01/26/2022 17:50
B26@9'	Y201458-11	Soil	January 26, 2022 16:10	01/26/2022 17:50
B27@9'	Y201458-12	Soil	January 26, 2022 16:14	01/26/2022 17:50
B28@9'	Y201458-13	Soil	January 26, 2022 16:20	01/26/2022 17:50

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.00.138.05

Project: KMG - Berig UPRR 17-35 (FL Release)

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1201455

page 7 of 2

**ORIGINS**  
LABORATORY, INC

Client: WSP USA  
Address: 4600 W 60th Ave  
Arvada, CO 80003  
Telephone Number: 303.889-9143  
Email Address: KMG Group

Project Manager: Brian Sulzberger  
Project Name: Berig UPRR 17-35 (Flawline Release)  
Project Number: 31403177.00.138.05  
Samples Collected By: Kyle Miller

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions		
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #			Other	
B2609	1/26/22	1610	2								X	X	1 2 methylhex Naphthalene 1-methylpyrene Benzene 1,3,5-TMS 1,2,4-TMS	blw Protection
B2709	1/26/22	1614	1								X	X	X	
B2809	1/26/22	1620	1								X	X	X	

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
Kyle Miller	1/26/22	1750	WSP	1/27/22	1750	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>

Date Results Needed

Temp Received: 4.1

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.00.138.05

Project: KMG - Berig UPRR 17-35 (FL Release)

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 12014526 Client: WSP  
Client Project ID: Berig UPRR 17-35 (FLR)

Checklist Completed by: AKH Shipped Via: HD  
Date/time completed: 1/26/12 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Airbill #: DA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
Cooler Number/Temperature: 1 / 4.1 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °C  
Thermometer ID: T003

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

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

Reviewed by (Project Manager): [Signature] Date/Time Reviewed: 1/26/12

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

NW05@4'  
1/26/2022 3:16:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201458-01 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A2631	01/26/2022	01/27/2022	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	90.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	91.2 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	55.2 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	69 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	54.6 %	29-110	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

NW06@4'  
1/26/2022 3:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201458-02 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A2631	01/26/2022	01/27/2022	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	89.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	92.2 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	58.2 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	74.2 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	57.3 %	29-110	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

NW07@4'  
1/26/2022 3:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201458-03 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A2631	01/26/2022	01/27/2022	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	90.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	92.8 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	55.4 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	75.6 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	56 %	29-110	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

NW08@4'  
1/26/2022 3:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y201458-04 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0192		0.00200	mg/kg	1	B2A2631	01/26/2022	01/27/2022	
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	113 %		70-130			"	"	"	
Surrogate: Toluene-d8	85.7 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	210 %		70-130			"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00348	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	0.0025	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	55.6 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	78.9 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	60.4 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

NE11@4'  
1/26/2022 3:36:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y201458-05 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.111		0.0500	mg/kg	25	B2A2631	01/26/2022	01/27/2022	
Benzene	ND		0.00200	"	1	"	"	01/27/2022	U

Surrogate: 1,2-Dichloroethane-d4	88.2 %		70-130			"	"	01/27/2022	
Surrogate: Toluene-d8	113 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	121 %		70-130			"	"	"	

## PAH by 8270D SIM

1-Methylnaphthalene	0.0378	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	0.088	0.000645	0.00067	"	"	"	"	"	
Naphthalene	0.0105	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	56.9 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	77.4 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	59 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

NE12@4'  
1/26/2022 3:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y201458-06 (Soil)

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	4.25		0.100	mg/kg	50	B2A2631	01/26/2022	01/27/2022	
1,3,5-Trimethylbenzene	3.84		0.100	"	"	"	"	"	
Benzene	0.778		0.100	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	83.6 %		70-130			"	"	"	
Surrogate: Toluene-d8	97.9 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.2 %		70-130			"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	0.0152	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	0.0243	0.000645	0.00067	"	"	"	"	"	
Naphthalene	0.0117	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	50.9 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	72.9 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	53.4 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.00.138.05

Project: KMG - Berig UPRR 17-35 (FL Release)

NE13@4'

1/26/2022 3:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y201458-07 (Soil)

## Total Metals by 6020B

Barium	93.3	0.042	0.25	mg/Kg	5	L597033	01/31/2022	02/01/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.00.138.05

Project: KMG - Berig UPRR 17-35 (FL Release)

SE06@4'

1/26/2022 3:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y201458-08 (Soil)

## Total Metals by 6020B

Barium	68	0.042	0.25	mg/Kg	5	L597033	01/31/2022	02/01/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

B24@9'

1/26/2022 3:56:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y201458-09 (Soil)

**8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	50.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	69.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	51.7 %		29-110			"	"	"	

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2A2631	01/26/2022	01/27/2022	U
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %		70-130			"	"	"	
Surrogate: Toluene-d8	97.7 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %		70-130			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

B25@9'

1/26/2022 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y201458-10 (Soil)

**8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	53.6 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	75.9 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	56 %		29-110			"	"	"	

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2A2631	01/26/2022	01/28/2022	U
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %		70-130			"	"	"	
Surrogate: Toluene-d8	97.4 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %		70-130			"	"	"	

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

B26@9'

1/26/2022 4:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y201458-11 (Soil)

**8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	47.1 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	73.4 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	49.8 %		29-110			"	"	"	

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2A2631	01/26/2022	01/28/2022	U
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %		70-130			"	"	"	
Surrogate: Toluene-d8	98.2 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.9 %		70-130			"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

B27@9'

1/26/2022 4:14:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y201458-12 (Soil)

**8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	49.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	76.1 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	51.2 %		29-110			"	"	"	

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2A2631	01/26/2022	01/28/2022	U
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %		70-130			"	"	"	
Surrogate: Toluene-d8	98.5 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %		70-130			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

B28@9'

1/26/2022 4:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y201458-13 (Soil)

**8270D SIM**

1-Methylnaphthalene	0.00298	0.000364	0.00067	mg/Kg	1	L597251	02/01/2022	02/01/2022	
2-Methylnaphthalene	0.00474	0.000645	0.00067	"	"	"	"	"	
Naphthalene	0.00152	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	54.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	80.4 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	58.6 %		29-110			"	"	"	

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0250		0.00200	mg/kg	1	B2A2631	01/26/2022	01/28/2022	
1,3,5-Trimethylbenzene	0.169		0.00200	"	"	"	"	"	
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %		70-130			"	"	"	
Surrogate: Toluene-d8	96.4 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	112 %		70-130			"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A2631 - EPA 5030 (soil)</b>										
<b>Blank (B2A2631-BLK1)</b>					Prepared: 01/26/2022 Analyzed: 01/27/2022					
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	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		118	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		90.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		92.4	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A2631 - EPA 5030 (soil)</b>										
<b>LCS (B2A2631-BS1)</b>					Prepared: 01/26/2022 Analyzed: 01/27/2022					
1,2,4-Trimethylbenzene	0.0751	0.00200	mg/kg	0.100		75.1	70-130			
1,3,5-Trimethylbenzene	0.0743	0.00200	"	0.100		74.3	70-130			
Benzene	0.0978	0.00200	"	0.100		97.8	70-130			
Ethylbenzene	0.0817	0.00200	"	0.100		81.7	70-130			
Naphthalene	0.0950	0.0100	"	0.100		95.0	70-130			
Toluene	0.0967	0.00200	"	0.100		96.7	70-130			
o-Xylene	0.0833	0.00200	"	0.100		83.3	70-130			
m,p-Xylene	0.162	0.00400	"	0.200		80.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.2	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2A2631 - EPA 5030 (soil)**

Matrix Spike (B2A2631-MS1)		Source: Y201458-01			Prepared: 01/26/2022 Analyzed: 01/27/2022					
1,2,4-Trimethylbenzene	0.0940	0.00200	mg/kg	0.100	ND	94.0	70-130			
1,3,5-Trimethylbenzene	0.0942	0.00200	"	0.100	ND	94.2	70-130			
Benzene	0.115	0.00200	"	0.100	ND	115	70-130			
Ethylbenzene	0.0990	0.00200	"	0.100	ND	99.0	70-130			
Naphthalene	0.0984	0.0100	"	0.100	ND	98.4	70-130			
Toluene	0.112	0.00200	"	0.100	ND	112	70-130			
o-Xylene	0.0992	0.00200	"	0.100	ND	99.2	70-130			
m,p-Xylene	0.198	0.00400	"	0.200	ND	99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.0	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.1	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A2631 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2A2631-MSD1)</b>		<b>Source: Y201458-01</b>			Prepared: 01/26/2022 Analyzed: 01/27/2022					
1,2,4-Trimethylbenzene	0.0881	0.00200	mg/kg	0.100	ND	88.1	70-130	6.48	20	
1,3,5-Trimethylbenzene	0.0877	0.00200	"	0.100	ND	87.7	70-130	7.23	20	
Benzene	0.109	0.00200	"	0.100	ND	109	70-130	5.68	20	
Ethylbenzene	0.0926	0.00200	"	0.100	ND	92.6	70-130	6.62	20	
Naphthalene	0.0904	0.0100	"	0.100	ND	90.4	70-130	8.47	20	
Toluene	0.104	0.00200	"	0.100	ND	104	70-130	7.73	20	
o-Xylene	0.0927	0.00200	"	0.100	ND	92.7	70-130	6.71	20	
m,p-Xylene	0.185	0.00400	"	0.200	ND	92.7	70-130	6.75	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		97.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

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

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## PAH by 8270D SIM - Quality Control

### Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch L597251 - 3550B

MSD (L 86374-MSD-L597251)			Source: Y201458-01			Prepared: 02/01/2022 Analyzed: 02/01/2022				
Naphthalene	0.101	0.000484	mg/Kg	0.165	<0.000484	61.2	30-130	3	30	
2-Methylnaphthalene	0.0953	0.000645	"	0.165	<0.000645	57.7	30-130	1.1	30	
1-Methylnaphthalene	0.0972	0.000364	"	0.165	<0.000364	58.9	30-130	2.3	30	
Surrogate: Nitrobenzene-d5	60.6		"	0.33	178	60.6	29-110			
Surrogate: 4-Terphenyl-d14	77.8		"	0.33	225	77.8	33-122			
Surrogate: 2-Fluorobiphenyl	60		"	0.33	180	60	33-115			
MS (L 86374-MS-L597251)			Source: Y201458-01			Prepared: 02/01/2022 Analyzed: 02/01/2022				
Naphthalene	0.098	0.000484	mg/Kg	0.166	<0.000484	59	30-130			
1-Methylnaphthalene	0.0949	0.000364	"	0.166	<0.000364	57.1	30-130			
2-Methylnaphthalene	0.0942	0.000645	"	0.166	<0.000645	56.7	30-130			
Surrogate: 4-Terphenyl-d14	78.6		"	0.332	225	78.6	33-122			
Surrogate: 2-Fluorobiphenyl	60.8		"	0.332	180	60.8	33-115			
Surrogate: Nitrobenzene-d5	61.4		"	0.332	178	61.4	29-110			
LCS (LCS-L597251)			Prepared: 02/01/2022 Analyzed: 02/01/2022							
2-Methylnaphthalene	0.0936	0.000645	mg/Kg	0.167		56	30-130			
1-Methylnaphthalene	0.0934	0.000364	"	0.167		55.9	30-130			
Naphthalene	0.0979	0.000484	"	0.167		58.6	30-130			
Surrogate: Nitrobenzene-d5	62.7		"	0.333		62.7	29-110			
Surrogate: 4-Terphenyl-d14	81		"	0.333		81	33-122			
Surrogate: 2-Fluorobiphenyl	62.4		"	0.333		62.4	33-115			

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L597251 - 3550B

LRB (LRB-L597251)

Prepared: 02/01/2022 Analyzed: 02/01/2022

1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	57.6		"	0.333	57.6		29-110			
Surrogate: 2-Fluorobiphenyl	60.9		"	0.333	60.9		33-115			
Surrogate: 4-Terphenyl-d14	74.4		"	0.333	74.4		33-122			

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Merrill, Project Manager

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.00.138.05  
Project: KMG - Berig UPRR 17-35 (FL Release)

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L597033 - 3050B</b>										
<b>MSD (L 86535-MSD-L597033)</b>	<b>Source: 86535</b>				Prepared: 01/31/2022 Analyzed: 02/01/2022					
Barium	31.2	0.042	mg/Kg	4.83	26.3	101	75-125	10.3	80	
<b>MS (L 86535-MS-L597033)</b>	<b>Source: 86535</b>				Prepared: 01/31/2022 Analyzed: 02/01/2022					
Barium	34.6	0.042	mg/Kg	4.96	26.3	167	75-125			*
<b>LCS (LCS-L597033)</b>					Prepared: 01/31/2022 Analyzed: 02/01/2022					
Barium	4.97	0.042	mg/Kg	5		99	80-120			
<b>LRB (LRB-L597033)</b>					Prepared: 01/31/2022 Analyzed: 02/01/2022					
Barium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.00.138.05

Project: KMG - Berig UPRR 17-35 (FL Release)

### Notes and Definitions

U Sample is Non-Detect.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Merrill, Project Manager



February 09, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO 80003

Project Name - KMG - Berig 17-35

Project Number - 31403177.138

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. February 08, 2022. This project is associated with Origins project number Y202149-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B29@11'	Y202149-01	Soil	February 8, 2022 12:45	02/08/2022 15:15

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y202149

Client: WSP

Client Project ID: Berig UPRR 17-35

Checklist Completed by: SG

Shipped Via: HD

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

Date/time completed: 2/16/22

Airbill #: N/A

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

☐ Water ☐ Other:

(Describe)

Cooler Number/Temperature: 1, 7.8 °C 1 °C 1 °C 1 °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager)

2/18/22  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jefe Pellegrini*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B29@11'

2/8/2022 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Y202149-01 (Soil)

Origins Laboratory, Inc.

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.0341	0.00200	mg/kg	1	B2B0821	ZZZ	02/08/2022	02/09/2022	
1,3,5-Trimethylbenzene	0.0309	0.00200	"	"	"	ZZZ	"	"	

Surrogate: 1,2-Dichloroethane-d4

104 %

70-130

"

"

"

Surrogate: Toluene-d8

96.5 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

101 %

70-130

"

"

"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2B0821 - EPA 5030 (soil)</b>										
<b>Blank (B2B0821-BLK1)</b>					Prepared: 02/08/2022 Analyzed: 02/08/2022					
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	0.0100	"							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		95.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch B2B0821 - EPA 5030 (soil)**

**LCS (B2B0821-BS1)**

Prepared: 02/08/2022 Analyzed: 02/08/2022

1,2,4-Trimethylbenzene	0.113	0.00200	mg/kg	0.100		113	70-130			
1,3,5-Trimethylbenzene	0.116	0.00200	"	0.100		116	70-130			
Benzene	0.106	0.00200	"	0.100		106	70-130			
Ethylbenzene	0.113	0.00200	"	0.100		113	70-130			
Naphthalene	0.0987	0.0100	"	0.100		98.7	70-130			
Toluene	0.107	0.00200	"	0.100		107	70-130			
o-Xylene	0.112	0.00200	"	0.100		112	70-130			
m,p-Xylene	0.227	0.00400	"	0.200		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch B2B0821 - EPA 5030 (soil)**

Matrix Spike (B2B0821-MS1)		Source: Y202141-01			Prepared: 02/08/2022 Analyzed: 02/08/2022					
1,2,4-Trimethylbenzene	0.0927	0.00200	mg/kg	0.100	0.0369	55.8	70-130			QM-07
1,3,5-Trimethylbenzene	0.0939	0.00200	"	0.100	ND	93.9	70-130			
Benzene	0.105	0.00200	"	0.100	0.00256	103	70-130			
Ethylbenzene	0.101	0.00200	"	0.100	0.00216	99.2	70-130			
Naphthalene	0.201	0.0100	"	0.100	0.106	95.6	70-130			
Toluene	0.0979	0.00200	"	0.100	ND	97.9	70-130			
o-Xylene	0.0999	0.00200	"	0.100	0.000660	99.3	70-130			
m,p-Xylene	0.196	0.00400	"	0.200	ND	98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.16		"	0.125		125	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2B0821 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2B0821-MSD1)</b>		<b>Source: Y202141-01</b>			Prepared: 02/08/2022 Analyzed: 02/08/2022					
1,2,4-Trimethylbenzene	0.0888	0.00200	mg/kg	0.100	0.0369	51.9	70-130	4.32	20	QM-07
1,3,5-Trimethylbenzene	0.0911	0.00200	"	0.100	ND	91.1	70-130	3.07	20	
Benzene	0.104	0.00200	"	0.100	0.00256	101	70-130	1.78	20	
Ethylbenzene	0.0997	0.00200	"	0.100	0.00216	97.6	70-130	1.63	20	
Naphthalene	0.200	0.0100	"	0.100	0.106	94.0	70-130	0.809	20	
Toluene	0.0959	0.00200	"	0.100	ND	95.9	70-130	2.04	20	
o-Xylene	0.0974	0.00200	"	0.100	0.000660	96.7	70-130	2.57	20	
m,p-Xylene	0.190	0.00400	"	0.200	ND	94.8	70-130	3.39	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.17		"	0.125		139	70-130			QM-07

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





February 23, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 received by Origins Laboratory, Inc. February 10, 2022. This project is associated with Origins project number Y202229-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW07@4'	Y202229-01	Soil	February 10, 2022 15:45	02/10/2022 16:52
NW10@4'	Y202229-02	Soil	February 10, 2022 15:42	02/10/2022 16:52
NW09@4'	Y202229-03	Soil	February 10, 2022 15:39	02/10/2022 16:52
NE17@4'	Y202229-04	Soil	February 10, 2022 15:30	02/10/2022 16:52
NE16@4'	Y202229-05	Soil	February 10, 2022 15:26	02/10/2022 16:52
NE15@4'	Y202229-06	Soil	February 10, 2022 15:23	02/10/2022 16:52
NE14@4'	Y202229-07	Soil	February 10, 2022 15:20	02/10/2022 16:52
SE07@4'	Y202229-08	Soil	February 10, 2022 15:16	02/10/2022 16:52
NW11@4'	Y202229-09	Soil	February 10, 2022 14:10	02/10/2022 16:52
NE18@4'	Y202229-10	Soil	February 10, 2022 14:13	02/10/2022 16:52
SE08@4'	Y202229-11	Soil	February 10, 2022 15:48	02/10/2022 16:52
B30@6'	Y202229-12	Soil	February 10, 2022 15:59	02/10/2022 16:52
B31@9'	Y202229-13	Soil	February 10, 2022 15:36	02/10/2022 16:52
B32@9'	Y202229-14	Soil	February 10, 2022 15:33	02/10/2022 16:52

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B33@6'	Y202229-15	Soil	February 10, 2022 15:51	02/10/2022 16:52
B34@12'	Y202229-16	Soil	February 10, 2022 15:56	02/10/2022 16:52

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

page 1 of 2

Client: *B. Sulzberger WSP USA*  
Project Manager: *B. Sulzberger*  
Address: *4600 W. 60th Ave Arvada*  
Project Name: *Berig 17-35*  
Project Number: *31403177.138*

Telephone Number:  
Email Address: *kmg group*

Samples Collected By: *DH*

Sample ID Description	Date Sampled	Time Sampled	Preservative				Matrix			Analysis				Sample Instructions
			Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air/Surface	Other	1. 3.5 TMB	2. 1.5 TMB	3. 1.5 TMB	
Su07 @ 4'	2-10-22	1545	X						X					low protection 1
NW10 @ 4'		1542												
NW09 @ 4'		1539												
NE17 @ 4'		1530												
NE16 @ 4'		1526												
NE15 @ 4'		1513												
NE14 @ 4'		1520												
SE07 @ 4'		1516												
NW11 @ 4'		1410												
NE18 @ 4'		1413												
Relinquished By: <i>[Signature]</i>	Date: 2-10-22	Time: 1652	Received By: <i>[Signature]</i>				Received By: <i>[Signature]</i>			Date: 2-10-22				Time: 1652
Relinquished By:	Date:	Time:	Received By:				Received By:			Date:				Time:

Date Results Needed

9.7

Origins Laboratory, Inc.

*Jefe Pellegrini*

Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

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page 2 of 2

**ORIGINS**  
LABORATORY, INC

410225

Client: WSP USA  
Address: 4600 W. 60th Ave Arvada  
Project Manager: B Sulzberger  
Project Name: Berig 17-35  
Project Number: 31403177.138  
Samples Collected By: BH

Telephone Number:  
Email Address: KMG Group

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil		
5808@4'	2-10-92	1559	2								fw protection 1
B30@6'		1534									2
B31@9'		1533									3
B32@9'		1551									4
B33@6'		1556									5
B34@12'											6
											7
											8
											9
											10

  

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
Brian Sulzberger	2-10-92	1552	BH	2-10-92	1602	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>

Date Results Needed

9-7

Origins Laboratory, Inc.

Jefe Pellegrini

Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: 120222

Client: WSP

Client Project ID: Berig UPRR 17-35

Checklist Completed by: KH

Shipped Via: FD

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

Date/time completed: 2/10/22

Airbill #: 120

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_

(Describe)

Cooler Number/Temperature: 1 19.7 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C

Thermometer ID: T005

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

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

Reviewed by (Project Manager) Kelly H

Date/Time Reviewed 2/10/22

Origins Laboratory, Inc.

*Jefe Pellegrini*

Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SW07@4'

2/10/2022 3:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202229-01 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B1020	02/10/2022	02/11/2022	U
------------------------	----	---------	-------	---	---------	------------	------------	---

Surrogate: 1,2-Dichloroethane-d4	98.5 %	70-130	"	"	"
Surrogate: Toluene-d8	96.6 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NW10@4'

2/10/2022 3:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202229-02 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B1020	02/10/2022	02/11/2022	U
------------------------	----	---------	-------	---	---------	------------	------------	---

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	94.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NW09@4'  
2/10/2022 3:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y202229-03 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.0668	0.00200	mg/kg	1	B2B1020	02/10/2022	02/11/2022
------------------------	--------	---------	-------	---	---------	------------	------------

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	94.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	123 %	70-130	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.000618	0.000364	0.00067	mg/Kg	1	L600258	02/17/2022	02/18/2022	J
2-Methylnaphthalene	0.00102	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	49.2 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	63.5 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	47.4 %	29-110	"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE17@4'  
2/10/2022 3:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y202229-04 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.00540		0.00200	mg/kg	1	B2B1020	02/10/2022	02/11/2022
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Surrogate: 1,2-Dichloroethane-d4	104 %		70-130			"	"	"
Surrogate: Toluene-d8	95.7 %		70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	107 %		70-130			"	"	"

## PAH by 8270D-SIM

1-Methylnaphthalene	0.00166	0.000364	0.00067	mg/Kg	1	L600397	02/18/2022	02/21/2022
2-Methylnaphthalene	0.0015	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	49.5 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	54.1 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	45.3 %		29-110			"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE16@4'

2/10/2022 3:26:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y202229-05 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B1020	02/10/2022	02/11/2022	U
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Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	96.1 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

## PAH by 8270D-SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L600397	02/18/2022	02/21/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	48 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	51.4 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	44.7 %	29-110	"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NE15@4'

2/10/2022 3:23:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202229-06 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	5.11		0.500	mg/kg	250	B2B1020	02/10/2022	02/11/2022	
1,3,5-Trimethylbenzene	4.68		0.500	"	"	"	"	"	
Benzene	0.217		0.00200	"	1	"	"	02/12/2022	

Surrogate: 1,2-Dichloroethane-d4	125 %		70-130			"	"	"	
Surrogate: Toluene-d8	95.3 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	208 %		70-130			"	"	"	S-04

## PAH by 8270D-SIM

1-Methylnaphthalene	0.108	0.000364	0.00067	mg/Kg	1	L600397	02/18/2022	02/21/2022	
2-Methylnaphthalene	0.063	0.000645	0.00067	"	"	"	"	"	
Naphthalene	0.0625	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	48.3 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	48 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	49.8 %		29-110			"	"	"	

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

NE14@4'  
2/10/2022 3:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y202229-07 (Soil)

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.0117		0.00200	mg/kg	1	B2B1020	02/10/2022	02/11/2022	
1,3,5-Trimethylbenzene	0.0187		0.00200	"	"	"	"	"	
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %		70-130			"	"	"	
Surrogate: Toluene-d8	96.1 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %		70-130			"	"	"	

**PAH by 8270D-SIM**

1-Methylnaphthalene	0.000719	0.000364	0.00067	mg/Kg	1	L600397	02/18/2022	02/21/2022	
2-Methylnaphthalene	0.00165	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	58.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	61.1 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	53.3 %		29-110			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

SE07@4'

2/10/2022 3:16:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y202229-08 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B1020	02/10/2022	02/12/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	95.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"

**PAH by 8270D-SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L600397	02/18/2022	02/21/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	56.6 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	57.2 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	51.2 %	29-110	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NW11@4'

2/10/2022 2:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y202229-09 (Soil)

## Total Metals by 6020B

Barium	61.5	0.042	0.25	mg/Kg	5	L599907	02/16/2022	02/18/2022
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Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

NE18@4'

2/10/2022 2:13:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y202229-10 (Soil)

## Total Metals by 6020B

Barium	62.3	0.042	0.25	mg/Kg	5	L599907	02/16/2022	02/18/2022
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Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

SE08@4'

2/10/2022 3:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y202229-11 (Soil)

## Total Metals by 6020B

Barium	42.1	0.042	0.25	mg/Kg	5	L599907	02/16/2022	02/18/2022
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Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

B30@6'

2/10/2022 3:59:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y202229-12 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.00328		0.00200	mg/kg	1	B2B1020	02/10/2022	02/12/2022	
1,3,5-Trimethylbenzene	0.0344		0.00200	"	"	"	"	"	
Benzene	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %		70-130			"	"	"	
Surrogate: Toluene-d8	97.1 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %		70-130			"	"	"	

**PAH by 8270D-SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L600397	02/18/2022	02/21/2022	
2-Methylnaphthalene	0.000697	0.000645	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	56.8 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	59.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	52.9 %		29-110			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B31@9'

2/10/2022 3:36:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202229-13 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B1020	02/10/2022	02/12/2022	U
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Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	96.6 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B32@9'

2/10/2022 3:33:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y202229-14 (Soil)

## Total Metals by 6020B

Barium	98.9	0.042	0.25	mg/Kg	5	L599907	02/16/2022	02/18/2022
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B33@6'

2/10/2022 3:51:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202229-15 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B1020	02/10/2022	02/12/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	94.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

B34@12'

2/10/2022 3:56:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202229-16 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.00386	0.00200	mg/kg	1	B2B1020	02/10/2022	02/12/2022
1,3,5-Trimethylbenzene	0.0125	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	113 %	70-130	"	"	"
Surrogate: Toluene-d8	93.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2B1020 - EPA 5030 (soil)</b>										
<b>Blank (B2B1020-BLK1)</b>					Prepared: 02/10/2022 Analyzed: 02/11/2022					
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	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2B1020 - EPA 5030 (soil)</b>										
<b>LCS (B2B1020-BS1)</b>					Prepared: 02/10/2022 Analyzed: 02/11/2022					
1,2,4-Trimethylbenzene	0.0965	0.00200	mg/kg	0.100		96.5	70-130			
1,3,5-Trimethylbenzene	0.0973	0.00200	"	0.100		97.3	70-130			
Benzene	0.0968	0.00200	"	0.100		96.8	70-130			
Ethylbenzene	0.0882	0.00200	"	0.100		88.2	70-130			
Naphthalene	0.124	0.0100	"	0.100		124	70-130			
Toluene	0.0895	0.00200	"	0.100		89.5	70-130			
o-Xylene	0.0943	0.00200	"	0.100		94.3	70-130			
m,p-Xylene	0.180	0.00400	"	0.200		90.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2B1020 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2B1020-MS1)</b>		<b>Source: Y202229-01</b>			Prepared: 02/10/2022 Analyzed: 02/11/2022					
1,2,4-Trimethylbenzene	0.107	0.00200	mg/kg	0.100	0.000960	106	70-130			
1,3,5-Trimethylbenzene	0.110	0.00200	"	0.100	ND	110	70-130			
Benzene	0.110	0.00200	"	0.100	ND	110	70-130			
Ethylbenzene	0.101	0.00200	"	0.100	ND	101	70-130			
Naphthalene	0.131	0.0100	"	0.100	0.00400	127	70-130			
Toluene	0.101	0.00200	"	0.100	ND	101	70-130			
o-Xylene	0.104	0.00200	"	0.100	ND	104	70-130			
m,p-Xylene	0.204	0.00400	"	0.200	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2B1020 - EPA 5030 (soil)**

Matrix Spike Dup (B2B1020-MSD1)		Source: Y202229-01			Prepared: 02/10/2022 Analyzed: 02/11/2022					
1,2,4-Trimethylbenzene	0.103	0.00200	mg/kg	0.100	0.000960	102	70-130	3.34	20	
1,3,5-Trimethylbenzene	0.107	0.00200	"	0.100	ND	107	70-130	2.23	20	
Benzene	0.109	0.00200	"	0.100	ND	109	70-130	1.08	20	
Ethylbenzene	0.0980	0.00200	"	0.100	ND	98.0	70-130	2.62	20	
Naphthalene	0.130	0.0100	"	0.100	0.00400	126	70-130	1.16	20	
Toluene	0.0990	0.00200	"	0.100	ND	99.0	70-130	2.28	20	
o-Xylene	0.101	0.00200	"	0.100	ND	101	70-130	2.17	20	
m,p-Xylene	0.199	0.00400	"	0.200	ND	99.3	70-130	2.54	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L600258 - 3550B**

MSD (L 91012-MSD-L600258)		Source: 91012			Prepared: 02/17/2022 Analyzed: 02/18/2022					
1-Methylnaphthalene	0.394	0.00364	mg/Kg	0.166	0.16	141	30-130	23.1	30	*
Naphthalene	0.0855	0.00484	"	0.166	91012	51.5	30-130	11.7	30	
2-Methylnaphthalene	0.191	0.00645	"	0.166	0.0911	60.1	30-130	41.4	30	
Surrogate: 4-Terphenyl-d14	59		"	0.332	198	59	33-122			
Surrogate: 2-Fluorobiphenyl	51.8		"	0.332	148	51.8	33-115			
Surrogate: Nitrobenzene-d5	47.8		"	0.332	129	47.8	29-110			
MS (L 91012-MS-L600258)		Source: 91012			Prepared: 02/17/2022 Analyzed: 02/18/2022					
1-Methylnaphthalene	0.497	0.00364	mg/Kg	0.166	0.16	203	30-130			*
2-Methylnaphthalene	0.291	0.00645	"	0.166	0.0911	120	30-130			
Naphthalene	0.0962	0.00484	"	0.166	91012	57.9	30-130			
Surrogate: 2-Fluorobiphenyl	54.2		"	0.332	148	54.2	33-115			
Surrogate: 4-Terphenyl-d14	58.7		"	0.332	198	58.7	33-122			
Surrogate: Nitrobenzene-d5	51.5		"	0.332	129	51.5	29-110			
LCS (LCS-L600258)					Prepared: 02/17/2022 Analyzed: 02/18/2022					
1-Methylnaphthalene	0.0895	0.000364	mg/Kg	0.167		53.5	30-130			
Naphthalene	0.0813	0.000484	"	0.167		48.6	30-130			
2-Methylnaphthalene	0.0892	0.000645	"	0.167		53.4	30-130			
Surrogate: Nitrobenzene-d5	56.4		"	0.333		56.4	29-110			
Surrogate: 4-Terphenyl-d14	69.9		"	0.333		69.9	33-122			
Surrogate: 2-Fluorobiphenyl	69		"	0.333		69	33-115			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L600258 - 3550B**

**LRB (LRB-L600258)**

Prepared: 02/17/2022 Analyzed: 02/18/2022

1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	47.4		"	0.333	47.4		29-110			
Surrogate: 2-Fluorobiphenyl	53.4		"	0.333	53.4		33-115			
Surrogate: 4-Terphenyl-d14	56.1		"	0.333	56.1		33-122			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**PAH by 8270D-SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L600397 - 3550B**

MSD (L 95643-MSD-L600397)		Source: 95643			Prepared: 02/18/2022 Analyzed: 02/21/2022					
1-Methylnaphthalene	0.0849	0.000364	mg/Kg	0.166	0.00117	50.4	30-130	2.1	30	
Naphthalene	0.0813	0.000484	"	0.166	0.000613	48.9	30-130	2.1	30	
2-Methylnaphthalene	0.0877	0.000645	"	0.166	0.0031	50.9	30-130	1.2	30	
Surrogate: 2-Fluorobiphenyl	47.8		"	0.332	186	47.8	33-115			
Surrogate: 4-Terphenyl-d14	50.9		"	0.332	178	50.9	33-122			
Surrogate: Nitrobenzene-d5	44.2		"	0.332	169	44.2	29-110			

MS (L 95643-MS-L600397)		Source: 95643			Prepared: 02/18/2022 Analyzed: 02/21/2022					
Naphthalene	0.0796	0.000484	mg/Kg	0.166	0.000613	47.9	30-130			
2-Methylnaphthalene	0.0866	0.000645	"	0.166	0.0031	50.3	30-130			
1-Methylnaphthalene	0.0831	0.000364	"	0.166	0.00117	49.3	30-130			
Surrogate: Nitrobenzene-d5	45.1		"	0.332	169	45.1	29-110			
Surrogate: 4-Terphenyl-d14	53.6		"	0.332	178	53.6	33-122			
Surrogate: 2-Fluorobiphenyl	49		"	0.332	186	49	33-115			

LCS (LCS-L600397)		Prepared: 02/18/2022 Analyzed: 02/21/2022								
1-Methylnaphthalene	0.0887	0.000364	mg/Kg	0.167		53.1	30-130			
Naphthalene	0.0834	0.000484	"	0.167		49.9	30-130			
2-Methylnaphthalene	0.0891	0.000645	"	0.167		53.3	30-130			
Surrogate: Nitrobenzene-d5	54		"	0.333		54	29-110			
Surrogate: 4-Terphenyl-d14	57.3		"	0.333		57.3	33-122			
Surrogate: 2-Fluorobiphenyl	55.2		"	0.333		55.2	33-115			

LRB (LRB-L600397)		Prepared: 02/18/2022 Analyzed: 02/21/2022								
1-Methylnaphthalene	ND	0.00067	mg/Kg			-				
2-Methylnaphthalene	ND	0.00067	"			-				
Naphthalene	ND	0.00067	"			-				
Surrogate: Nitrobenzene-d5	51		"	0.333		51	29-110			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

PAH by 8270D-SIM - Quality Control  
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L600397 - 3550B

LRB (LRB-L600397)

Prepared: 02/18/2022 Analyzed: 02/21/2022

Surrogate: 2-Fluorobiphenyl	56.7		mg/Kg	0.333		56.7	33-115			
Surrogate: 4-Terphenyl-d14	56.7		"	0.333		56.7	33-122			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L599907 - 3050B</b>										
<b>MSD (L 91782-MSD-L599907)</b>		<b>Source: 91782</b>								
					Prepared: 02/16/2022	Analyzed: 02/18/2022				
Barium	81.5	0.042	mg/Kg	4.82	131	NR	75-125	25.2	80	*
<b>MS (L 91782-MS-L599907)</b>		<b>Source: 91782</b>								
					Prepared: 02/16/2022	Analyzed: 02/18/2022				
Barium	105	0.042	mg/Kg	4.73	131	NR	75-125			*
<b>LCS (LCS-L599907)</b>										
					Prepared: 02/16/2022	Analyzed: 02/18/2022				
Barium	4.9	0.042	mg/Kg	5		98	80-120			
<b>LRB (LRB-L599907)</b>										
					Prepared: 02/16/2022	Analyzed: 02/18/2022				
Barium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35

### Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jen Pellegrini For Noelle Doyle Mathis, President





March 08, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig UPRR 17-35**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig UPRR 17-35 received by Origins Laboratory, Inc. February 28, 2022. This project is associated with Origins project number Y202602-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B37@10'	Y202602-01	Soil	February 28, 2022 13:15	02/28/2022 17:30
B36@13'	Y202602-02	Soil	February 28, 2022 13:20	02/28/2022 17:30
B35@7'	Y202602-03	Soil	February 28, 2022 13:25	02/28/2022 17:30
NE19@4'	Y202602-04	Soil	February 28, 2022 13:30	02/28/2022 17:30
NE20@4'	Y202602-05	Soil	February 28, 2022 13:35	02/28/2022 17:30
NW12@4'	Y202602-06	Soil	February 28, 2022 13:40	02/28/2022 17:30
NW13@4'	Y202602-07	Soil	February 28, 2022 13:45	02/28/2022 17:30
SE09@4'	Y202602-08	Soil	February 28, 2022 13:50	02/28/2022 17:30

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

4202402

page 1 of 1

Client: WSP USA  
Address: \_\_\_\_\_  
Telephone Number: 303-433-6758  
Email Address: Brian KMG Team

Project Manager: Brian Sulzberger  
Project Name: Berig UPRR 17-35  
Project Number: 31403177.138 P6# 4500601203  
Samples Collected By: Glen Thompson

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #			
B3710'	2-28-22	1715	2	X					X			1	
B36013'		1720										2	
B3507'		1725										3	
461624' NE1904'		1730										4	
461704' NE2004'		1735										5	
NW1204'		1740										6	
NW1304'		1745										7	
SE0904'		1750										8	
												9	
												10	

Handwritten notes:   
 - Paths removed from SE0904'   
 - Daniels email on 3/11

Relinquished By: [Signature] Date: 2-28-22 Time: 1730   
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By: JA Date: 2/28/22 Time: 1730   
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Turnaround Time: ☒ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard

Date Results Needed

Temp Received- 11.0

Origins Laboratory, Inc.

*Jefe Pellegrini*

Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

Origins Laboratory

Sample Receipt Checklist

Origins Work Order: Y202602

Client: WSP

Client Project ID: Berig UPRR 17-35

Checklist Completed by: SG

Date/time completed: 2/28/22

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

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_

Cooler Number/Temperature: 1 / 11.0 °C 1 °C 1 °C (Describe) \_\_\_\_\_ °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 2/28/22

Origins Laboratory, Inc.

Jefe Pellegrini

Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

B37@10'

2/28/2022 1:15:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y202602-01 (Soil)

## Total Metals by 6020B

Barium	282	0.042	0.25	mg/Kg	5	L602871	03/03/2022	03/07/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

B36@13'

2/28/2022 1:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202602-02 (Soil)

## GBTEX+TMBs by 8260D

1,3,5-Trimethylbenzene	0.00338	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022
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Surrogate: 1,2-Dichloroethane-d4	93.0 %	70-130	"	"	"
Surrogate: Toluene-d8	108 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.4 %	70-130	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

B35@7'

2/28/2022 1:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202602-03 (Soil)

## GBTEX+TMBs by 8260D

1,3,5-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022	U
------------------------	----	---------	-------	---	---------	------------	------------	---

Surrogate: 1,2-Dichloroethane-d4	94.7 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	92.0 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

NE19@4'

2/28/2022 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202602-04 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022	U
------------------------	----	---------	-------	---	---------	------------	------------	---

Surrogate: 1,2-Dichloroethane-d4	89.9 %	70-130	"	"	"
Surrogate: Toluene-d8	111 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.1 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig UPRR 17-35

NE20@4'

2/28/2022 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y202602-05 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.6 %	70-130	"	"	"
Surrogate: Toluene-d8	103 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	95.6 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L602915	03/04/2022	03/04/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	66.8 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	85.4 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	59.1 %	29-110	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

NW12@4'

2/28/2022 1:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202602-06 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022	U
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Surrogate: 1,2-Dichloroethane-d4	92.4 %	70-130	"	"	"
Surrogate: Toluene-d8	105 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	92.8 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig UPRR 17-35

NW13@4'  
2/28/2022 1:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y202602-07 (Soil)**

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.0 %	70-130	"	"	"
Surrogate: Toluene-d8	109 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	95.5 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L602915	03/04/2022	03/04/2022
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	73 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	89.3 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	64.7 %	29-110	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

SE09@4'

2/28/2022 1:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y202602-08 (Soil)

## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2B2827	02/28/2022	03/01/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.3 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.0 %	70-130	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2B2827 - EPA 5030 (soil)</b>										
<b>Blank (B2B2827-BLK1)</b>					Prepared: 02/28/2022 Analyzed: 02/28/2022					
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	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		87.0	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		107	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.3	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2B2827 - EPA 5030 (soil)**

**LCS (B2B2827-BS1)**

Prepared: 02/28/2022 Analyzed: 02/28/2022

1,2,4-Trimethylbenzene	0.101	0.00200	mg/kg	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.0996	0.00200	"	0.100		99.6	70-130			
Benzene	0.0822	0.00200	"	0.100		82.2	70-130			
Ethylbenzene	0.0940	0.00200	"	0.100		94.0	70-130			
Naphthalene	0.101	0.0100	"	0.100		101	70-130			
Toluene	0.0871	0.00200	"	0.100		87.1	70-130			
o-Xylene	0.0943	0.00200	"	0.100		94.3	70-130			
m,p-Xylene	0.192	0.00400	"	0.200		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		84.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.9	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2B2827 - EPA 5030 (soil)**

Matrix Spike (B2B2827-MS1)		Source: Y202602-02			Prepared: 02/28/2022 Analyzed: 02/28/2022					
1,2,4-Trimethylbenzene	0.0951	0.00200	mg/kg	0.100	0.00334	91.7	70-130			
1,3,5-Trimethylbenzene	0.0917	0.00200	"	0.100	0.00338	88.3	70-130			
Benzene	0.0738	0.00200	"	0.100	ND	73.8	70-130			
Ethylbenzene	0.0833	0.00200	"	0.100	0.000740	82.6	70-130			
Naphthalene	0.0962	0.0100	"	0.100	ND	96.2	70-130			
Toluene	0.0746	0.00200	"	0.100	ND	74.6	70-130			
o-Xylene	0.0860	0.00200	"	0.100	0.00134	84.6	70-130			
m,p-Xylene	0.180	0.00400	"	0.200	0.0115	84.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2B2827 - EPA 5030 (soil)**

Matrix Spike Dup (B2B2827-MSD1)		Source: Y202602-02			Prepared: 02/28/2022 Analyzed: 02/28/2022					
1,2,4-Trimethylbenzene	0.0894	0.00200	mg/kg	0.100	0.00334	86.1	70-130	6.14	20	
1,3,5-Trimethylbenzene	0.0864	0.00200	"	0.100	0.00338	83.0	70-130	5.95	20	
Benzene	0.0716	0.00200	"	0.100	ND	71.6	70-130	3.00	20	
Ethylbenzene	0.0749	0.00200	"	0.100	0.000740	74.2	70-130	10.6	20	
Naphthalene	0.0962	0.0100	"	0.100	ND	96.2	70-130	0.0208	20	
Toluene	0.0754	0.00200	"	0.100	ND	75.4	70-130	1.17	20	
o-Xylene	0.0801	0.00200	"	0.100	0.00134	78.8	70-130	7.03	20	
m,p-Xylene	0.173	0.00400	"	0.200	0.0115	80.8	70-130	3.89	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.5	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.7	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig UPRR 17-35

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L602871 - 3050B**

<b>MSD (L 99872-MSD-L602871)</b>		<b>Source: Y202602-01</b>			Prepared: 03/03/2022 Analyzed: 03/07/2022					
Barium	158	0.042	mg/Kg	4.93	282	NR	75-125	31.9	80	*
<b>MS (L 99872-MS-L602871)</b>		<b>Source: Y202602-01</b>			Prepared: 03/03/2022 Analyzed: 03/07/2022					
Barium	218	0.042	mg/Kg	4.77	282	NR	75-125			*
<b>LCS (LCS-L602871)</b>					Prepared: 03/03/2022 Analyzed: 03/07/2022					
Barium	5.04	0.042	mg/Kg	5		101	80-120			
<b>LRB (LRB-L602871)</b>					Prepared: 03/03/2022 Analyzed: 03/07/2022					
Barium	0.0465	0.25	mg/Kg				-			J

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig UPRR 17-35

### Notes and Definitions

U Sample is Non-Detect.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



March 28, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Berig 17-35 FL**

**Project Number - 31403177.138**

Attached are your analytical results for KMG - Berig 17-35 FL received by Origins Laboratory, Inc. March 14, 2022. This project is associated with Origins project number Y203360-01.

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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B37@11'	Y203360-01	Soil	March 14, 2022 14:40	03/14/2022 16:13

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

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page 1 of 1

**ORIGINS**  
LABORATORY, INC

403360

Client: WSP USA  
Address:  
Project Manager: Brian Sulzberger  
Project Name: Berig 17-35 (Flowline Release)  
Project Number: 31403177.138 POF 4500601203  
Samples Collected By: Glean Thompson  
Telephone Number:  
Email Address: KMG-TEAM

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #		
B37 e11'	3/14/22	1410	1	X					X		Barium	1
												2
												3
												4
												5
												6
												7
												8
												9
												10

  

Relinquished By:	Date: 3/14/22	Time: 16:13	Received By:	Date: 3/14/22	Time: 16:13
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Turnaround Time: Same Day ☒ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☐

Date Results Needed

(3.7)

Origins Laboratory, Inc.

*J. Bynon*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: Y203360

Client: WSP

Client Project ID: Berig VRR 17-35

Checklist Completed by: SL

Shipped Via: HD

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

Date/time completed: 3/15/22

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_

Cooler Number/Temperature: 1 13.2 °C 1 °C 1 °C (Describe) °C

Thermometer ID: T004

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

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

Reviewed by (Project Manager) JP

Date/Time Reviewed 3/16/22

Origins Laboratory, Inc.

*J. Bynon*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

B37@11'

3/14/2022 2:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.

Y203360-01 (Soil)

## Total Metals by 6020B

Barium	65.2	0.042	0.25	mg/Kg	5	L605710	03/18/2022	03/25/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.138  
Project: KMG - Berig 17-35 FL

## Total Metals by 6020B - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L605710 - 3050B</b>										
<b>MSD (L 92317-MSD-L605710)</b>	<b>Source: 92317</b>				Prepared: 03/18/2022 Analyzed: 03/25/2022					
Barium	95.2	0.042	mg/Kg	4.9	96.2	NR	75-125	1.6	80	*
<b>MS (L 92317-MS-L605710)</b>	<b>Source: 92317</b>				Prepared: 03/18/2022 Analyzed: 03/25/2022					
Barium	93.6	0.042	mg/Kg	4.59	96.2	NR	75-125			*
<b>LCS (LCS-L605710)</b>					Prepared: 03/18/2022 Analyzed: 03/25/2022					
Barium	4.66	0.042	mg/Kg	5		93	80-120			
<b>LRB (LRB-L605710)</b>					Prepared: 03/18/2022 Analyzed: 03/25/2022					
Barium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Bynon, Project Manager



WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

### Notes and Definitions

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jordan A. Bynon, Project Manager



June 03, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO 80003

Project Name - KMG - Berig 17-35 FL

Project Number - 31403177.138

Attached are your analytical results for KMG - Berig 17-35 FL received by Origins Laboratory, Inc. June 02, 2022. This project is associated with Origins project number Y206062-01.

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.

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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.

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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, Inc.  
303.433.1322  
o-squad@oelabinc.com



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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NE19@4'	Y206062-01	Soil	June 2, 2022 12:00	06/02/2022 17:30

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 17060602

Client: WSP

Client Project ID: Berig 17-35 FL

Checklist Completed by: KH

Shipped Via: TID

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

Date/time completed: 6/2/12

Airbill #: NA

Matrix(s) Received: (Check all that apply):

/ Soil/Solid

/ Water

/ Other:

(Describe)

Cooler Number/Temperature: 1 / 4.9 °C

/ °C

/ °C

/ °C

Thermometer ID: TUC4

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

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

[Signature]  
Reviewed by (Project Manager)

6/2/12  
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.138

Project: KMG - Berig 17-35 FL

NE19@4'

6/2/2022 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y206062-01 (Soil)

GBTEX+TMBs by 8260D

1,3,5-Trimethylbenzene	ND	0.00200	mg/kg	1	B2F0221	JMA	06/02/2022	06/02/2022	U
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Surrogate: 1,2-Dichloroethane-d4

101 % 70-130

"

"

"

Surrogate: Toluene-d8

91.4 % 70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

99.0 % 70-130

"

"

"

Origins Laboratory, Inc.



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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2F0221 - EPA 5030 (soil)</b>										
<b>Blank (B2F0221-BLK1)</b>					Prepared: 06/02/2022 Analyzed: 06/02/2022					
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	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.7	70-130			

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**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2F0221 - EPA 5030 (soil)**

**LCS (B2F0221-BS1)**

Prepared: 06/02/2022 Analyzed: 06/02/2022

1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100		105	70-130			
1,3,5-Trimethylbenzene	0.105	0.00200	"	0.100		105	70-130			
Benzene	0.108	0.00200	"	0.100		108	70-130			
Ethylbenzene	0.102	0.00200	"	0.100		102	70-130			
Naphthalene	0.106	0.0100	"	0.100		106	70-130			
Toluene	0.101	0.00200	"	0.100		101	70-130			
o-Xylene	0.103	0.00200	"	0.100		103	70-130			
m,p-Xylene	0.210	0.00400	"	0.200		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.1	70-130			

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Jen Pellegrini For Jordan A. Bynon, Project Manager



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Brian Sulzberger

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B2F0221 - EPA 5030 (soil)**

Matrix Spike (B2F0221-MS1)		Source: Y206062-01			Prepared: 06/02/2022 Analyzed: 06/02/2022					
1,2,4-Trimethylbenzene	0.0960	0.00200	mg/kg	0.100	ND	96.0	70-130			
1,3,5-Trimethylbenzene	0.0952	0.00200	"	0.100	ND	95.2	70-130			
Benzene	0.100	0.00200	"	0.100	ND	100	70-130			
Ethylbenzene	0.0922	0.00200	"	0.100	ND	92.2	70-130			
Naphthalene	0.109	0.0100	"	0.100	0.00398	105	70-130			
Toluene	0.0940	0.00200	"	0.100	ND	94.0	70-130			
o-Xylene	0.0936	0.00200	"	0.100	ND	93.6	70-130			
m,p-Xylene	0.190	0.00400	"	0.200	ND	94.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.4	70-130			

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Jen Pellegrini For Jordan A. Bynon, Project Manager

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2F0221 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2F0221-MSD1)</b>		<b>Source: Y206062-01</b>			Prepared: 06/02/2022 Analyzed: 06/02/2022					
1,2,4-Trimethylbenzene	0.0983	0.00200	mg/kg	0.100	ND	98.3	70-130	2.39	20	
1,3,5-Trimethylbenzene	0.0973	0.00200	"	0.100	ND	97.3	70-130	2.16	20	
Benzene	0.104	0.00200	"	0.100	ND	104	70-130	3.14	20	
Ethylbenzene	0.0943	0.00200	"	0.100	ND	94.3	70-130	2.21	20	
Naphthalene	0.112	0.0100	"	0.100	0.00398	108	70-130	3.30	20	
Toluene	0.0943	0.00200	"	0.100	ND	94.3	70-130	0.319	20	
o-Xylene	0.0967	0.00200	"	0.100	ND	96.7	70-130	3.28	20	
m,p-Xylene	0.195	0.00400	"	0.200	ND	97.4	70-130	2.74	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		93.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.9	70-130			

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### Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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