

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE LP**

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)	pH (su)	Specific Conductance (mmhos/cm)
E01@3'	3'	12/07/2010	<b>1.3</b>	8.0	1.0	13	<b>280</b>	<b>360</b>	<b>&lt;50</b>	NA	NA
E02@3'	3'	12/07/2010	0.062	0.15	0.0063	0.098	<50	0.91	<50	NA	NA
E03@3'	3'	12/07/2010	<b>7.7</b>	22	4.1	30	<b>360</b>	<b>1500</b>	<b>&lt;50</b>	NA	NA
S01@3'	3'	12/07/2010	<b>3.0</b>	17	2.8	25	<b>230</b>	<b>550</b>	<b>&lt;50</b>	NA	NA
S02@3'	3'	12/07/2010	<b>0.86</b>	10	2.0	22	<b>370</b>	<b>450</b>	<b>&lt;50</b>	NA	NA
W01@3'	3'	12/07/2010	<b>1.3</b>	10	1.6	17	<b>230</b>	<b>540</b>	<b>&lt;50</b>	NA	NA
W02@3'	3'	12/07/2010	<b>18</b>	34	11	46	<b>1400</b>	<b>3300</b>	<b>&lt;50</b>	NA	NA
W03@3'	3'	12/07/2010	<b>8.8</b>	26	5.5	36	<b>1000</b>	<b>1100</b>	<b>&lt;50</b>	NA	NA
E04@3'	3'	12/13/2010	0.13	0.33	0.014	0.22	<50	2.1	<50	NA	NA
E05@3'	3'	12/13/2010	<0.0050	<0.0050	<0.0050	<0.0050	<50	<0.50	<50	NA	NA
N01@3'	3'	12/13/2010	<0.0050	<0.0050	<0.0050	<0.0050	<50	<0.50	<50	NA	NA
S03@3'	3'	12/13/2010	<0.0050	<0.0050	<0.0050	<0.0050	<50	<0.50	<50	NA	NA
S04@3'	3'	12/13/2010	<0.0050	<0.0050	<0.0050	<0.0050	<50	<0.50	<50	NA	NA
W04@3'	3'	12/13/2010	0.026	0.34	0.070	1.2	<50	30	<50	NA	NA
W05@3'	3'	12/13/2010	<b>0.29</b>	0.52	0.017	0.25	<50	4.1	<50	NA	NA
W06@3'	3'	12/13/2010	<0.0050	0.0053	<0.0050	0.048	<50	<0.50	<50	NA	NA
W07@3'	3'	12/16/2010	<0.0050	<0.0050	<0.0050	<0.0050	<50	<0.50	<50	NA	NA
E01@7'	7'	09/27/2018	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.80	0.160
E02@7'	7'	09/27/2018	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.72	0.134
N01@7'	7'	09/27/2018	<0.002	<0.002	<0.002	<0.002	<25.0	0.357	<100	8.69	0.0725
N02@7'	7'	09/27/2018	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.93	0.0813
S01@7'	7'	09/27/2018	<0.050	<0.050	<0.050	0.232	<25.0	23.9	<100	<b>9.03 †</b>	0.146



**TABLE 1 (Continued)**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE LP**

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)	pH (su)	Specific Conductance (mmhos/cm)
S02@7'	7'	09/27/2018	<0.050	<0.050	<0.050	<0.050	253	7.82	<100	<b>9.05</b> †	0.201
W01@7'	7'	09/27/2018	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	<b>9.01</b> †	0.208
W02@7'	7'	09/27/2018	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.97	0.145
<b>COGCC Allowable Levels</b>			<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>500*</b>	<b>500*</b>	<b>500*</b>	<b>6-9</b>	<b>4</b>

Notes: bgs - below ground surface

COGCC - Colorado Oil and Gas Conservation Commission

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

NA - not analyzed/not available

ORO - oil range organics

su - standard units

† - Sample was collected at a depth greater than 3 feet bgs

\* - Standard applies to combined DRO-GRO-ORO

< - less than laboratory reporting limit

Bold indicates result exceeds allowable level



**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**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)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
GW01	12/7/2010	730	2200	58	500	4	NA
GW02	9/27/2018	22	<4.00	39.7	553	8	NA
MW01	1/21/2011	5200	15000	170	6900	3.70	93.35
	4/15/2011	2600	7400	290	660	4.48	92.57
	7/19/2011	1000	870	170	2000	3.30	93.75
	10/28/2011	2900	58	230	980	3.72	93.33
	1/13/2012	1000	140	190	2200	PVC Blocked	NA
	4/20/2012	2200	150	72	250	4.37	92.68
	7/5/2012	2000	89	520	4900	4.33	92.72
	10/16/2012	2200	430	280	1700	6.30	90.75
	1/16/2013	3000	1100	300	2000	6.23	90.82
	4/5/2013	3700	1500	160	1100	4.18	92.87
	7/22/2013	2600	63	160	510	5.16	91.89
	10/2/2013	1500	120	140	1300	3.89	93.16
	10/30/2013	Surveyed - Not Sampled				3.72	93.22
	1/14/2014	1690	39.7	255	2500	3.85	93.20
	4/15/2014	1070	17.5	204	1880	3.57	93.37
	7/18/2014	984	<10.0	208	1940	3.99	92.95
	10/17/2014	1570	<20.0	319	2830	3.81	93.13
	1/20/2015	166	1.5	17.1	253	2.40	94.54
	4/28/2015	455	<20.0	55.4	483	3.48	93.46
	7/13/2015	448	<10.0	22.1	159	4.32	92.62
	10/5/2015	208	<4.0	17.4	151	5.12	91.82
	1/25/2016	113	<4.0	5.8	24.4	3.40	93.54
	4/18/2016	54.3	<1.0	4.3	33.3	1.97	94.97
	7/20/2016	127	<1.00	6.13	14.0	4.64	92.30
	10/11/2016	54.2	<1.00	1.40	4.05	4.50	92.44
	1/16/2017	26.1	<1.00	3.05	6.34	3.58	93.36
	4/28/2017	71.9	<1.00	<1.00	<1.00	0.00	96.94
	7/20/2017	76.1	<1.00	<1.00	<1.00	5.15	91.79
	10/17/2017	403	<1.00	12.0	91.9	4.20	92.74
	1/30/2018	112	<4.00	<4.00	<4.00	3.79	93.15
	2/23/2018	Surveyed - Not Sampled				3.86	93.08
	4/18/2018	271	<1.00	<1.00	<1.00	4.35	92.59



**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**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)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	7/20/2018	165	<4.00	<4.00	<4.00	6.88	90.06
	MW01 abandoned on 10/18/2018						
MW01R	11/9/2018	<1.00	<1.00	<1.00	<1.00	5.03	91.85
	1/10/2019	<4.00	<4.00	<4.00	<4.00	3.69	92.59
MW02	1/21/2011	<1.0	3.2	<1.0	<1.0	3.47	93.09
	4/15/2011	29	<1.0	<1.0	<1.0	4.15	92.41
	7/19/2011	110	<1.0	<1.0	<1.0	3.12	93.44
	10/28/2011	<1.0	<1.0	<1.0	<1.0	3.62	92.94
	1/13/2012	1.9	<1.0	<1.0	<1.0	3.10	93.46
	4/20/2012	2.4	<1.0	<1.0	<1.0	4.52	92.04
	7/5/2012	<1.0	<1.0	<1.0	<1.0	4.45	92.11
	10/16/2012	<1.0	<1.0	<1.0	<1.0	6.70	89.86
	1/16/2013	1.9	<1.0	<1.0	<1.0	6.55	90.01
	4/5/2013	<1.0	<1.0	<1.0	<1.0	4.35	92.21
	7/22/2013	<1.0	<1.0	<1.0	<1.0	4.80	91.76
	10/2/2013	2.1	<1.0	<1.0	<1.0	3.69	92.87
	10/30/2013	Surveyed - Not Sampled				3.18	93.28
	1/14/2014	<4.0	<4.0	<4.0	<4.0	3.66	92.90
	4/15/2014	<1.0	<1.0	<1.0	<1.0	3.39	93.07
	7/18/2014	<1.0	<1.0	<1.0	<1.0	3.72	92.74
	10/17/2014	<1.0	<1.0	<1.0	<1.0	3.61	92.85
	1/20/2015	<1.0	<1.0	<1.0	<1.0	2.94	93.52
	4/28/2015	<1.0	<1.0	<1.0	<1.0	3.21	93.25
	7/13/2015	<1.0	<1.0	<1.0	<1.0	3.70	92.76
	10/5/2015	<1.0	<1.0	<1.0	<1.0	4.50	91.96
	1/25/2016	<1.0	<1.0	<1.0	<1.0	3.02	93.44
	4/18/2016	<1.0	<1.0	<1.0	<1.0	1.90	94.56
	7/20/2016	<1.00	<1.00	<1.00	<1.00	4.43	92.03
	10/11/2016	<1.00	<1.00	<1.00	<1.00	4.29	92.17
	1/16/2017	<1.00	<1.00	<1.00	<1.00	3.34	93.12
	4/28/2017	<1.00	<1.00	<1.00	<1.00	0.00	96.46
	7/20/2017	<1.00	<1.00	<1.00	<1.00	5.00	91.46
	10/17/2017	<1.00	<1.00	<1.00	<1.00	4.06	92.40
	1/30/2018	<1.00	<1.00	<1.00	<1.00	3.50	92.96



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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	2/23/2018	Surveyed - Not Sampled				3.45	93.03
	4/18/2018	<1.00	<1.00	<1.00	<1.00	3.31	93.15
	7/20/2018	<1.00	<1.00	<1.00	<1.00	5.66	90.80
	10/30/2018	<1.00	<1.00	<1.00	<1.00	5.12	91.34
	11/9/2018	DTW Measurement Only - Not Sampled				4.97	91.49
	1/10/2019	<1.00	<1.00	<1.00	<1.00	4.21	92.25
MW03	1/21/2011	19	<1.0	<1.0	8.1	3.13	93.20
	4/15/2011	27	<1.0	<1.0	<1.0	3.77	92.56
	7/19/2011	93	<1.0	<1.0	<1.0	2.78	93.55
	10/28/2011	<1.0	<1.0	<1.0	<1.0	3.28	93.05
	1/13/2012	1.4	<1.0	6.5	<1.0	2.76	93.57
	4/20/2012	<1.0	<1.0	<1.0	<1.0	3.46	92.87
	7/5/2012	5.8	<1.0	<1.0	<1.0	3.44	92.89
	10/16/2012	16	<1.0	<1.0	1.0	6.67	89.66
	1/16/2013	93	7.4	1.3	12	6.51	89.82
	4/5/2013	580	3.6	<1.0	9.4	3.25	93.08
	7/22/2013	120	<1.0	<1.0	<1.0	4.49	91.84
	10/2/2013	26	<1.0	<1.0	4.8	3.60	92.73
	10/30/2013	Surveyed - Not Sampled				2.46	93.80
	1/14/2014	27.1	<4.0	<4.0	<4.0	3.24	93.09
	4/15/2014	19.2	<1.0	<1.0	<1.0	3.06	93.20
	7/18/2014	<1.0	<1.0	<1.0	<1.0	3.40	92.86
	10/17/2014	<1.0	<1.0	<1.0	<1.0	3.32	92.94
	1/20/2015	<1.0	<1.0	<1.0	<1.0	2.71	93.55
	4/28/2015	<1.0	<1.0	<1.0	<1.0	2.94	93.32
	7/13/2015	<1.0	<1.0	<1.0	<1.0	3.37	92.89
	10/5/2015	<1.0	<1.0	<1.0	<1.0	4.18	92.08
	1/25/2016	<1.0	<1.0	<1.0	<1.0	2.74	93.52
	4/18/2016	<1.0	<1.0	<1.0	<1.0	1.60	94.66
	7/20/2016	<1.00	<1.00	<1.00	<1.00	4.11	92.15
	10/11/2016	<1.00	<1.00	<1.00	<1.00	3.98	92.28
	1/16/2017	<1.00	<1.00	<1.00	<1.00	3.08	93.18
	4/28/2017	<1.00	<1.00	<1.00	<1.00	0.00	96.26
	7/20/2017	<1.00	<1.00	<1.00	<1.00	4.78	91.48
	10/17/2017	<1.00	<1.00	<1.00	<1.00	3.73	92.53



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

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	1/30/2018	<1.00	<1.00	<1.00	<1.00	3.15	93.11
	2/23/2018	Surveyed - Not Sampled				3.13	93.12
	4/18/2018	<1.00	<1.00	<1.00	<1.00	3.58	92.68
	7/20/2018	<1.00	<1.00	<1.00	<1.00	5.91	90.35
	10/30/2018	<1.00	<1.00	<1.00	<1.00	4.81	91.45
	11/9/2018	DTW Measurement Only - Not Sampled				4.61	91.65
	1/10/2019	<1.00	<1.00	<1.00	<1.00	3.91	92.35
MW04	1/21/2011	<1.0	<1.0	<1.0	<1.0	3.64	93.32
	4/15/2011	<1.0	<1.0	<1.0	<1.0	4.23	92.73
	7/19/2011	<1.0	<1.0	<1.0	<1.0	3.23	93.73
	10/28/2011	<1.0	<1.0	<1.0	<1.0	3.72	93.24
	1/13/2012	<1.0	<1.0	<1.0	<1.0	3.14	93.82
	4/20/2012	<1.0	<1.0	<1.0	<1.0	4.37	92.59
	7/5/2012	<1.0	<1.0	<1.0	<1.0	4.36	92.66
	10/16/2012	10	<1.0	<1.0	<1.0	6.12	90.84
	1/16/2013	1.4	<1.0	<1.0	<1.0	5.98	90.98
	4/5/2013	<1.0	<1.0	<1.0	<1.0	4.18	92.78
	7/22/2013	<1.0	<1.0	<1.0	<1.0	4.94	92.02
	10/2/2013	<1.0	<1.0	<1.0	<1.0	3.83	93.13
	10/30/2013	Surveyed - Not Sampled				3.32	93.42
	1/14/2014	<4.0	<4.0	<4.0	<4.0	4.77	92.19
	4/15/2014	<1.0	<1.0	<1.0	<1.0	3.38	93.36
	7/18/2014	<1.0	<1.0	<1.0	<1.0	3.77	92.97
	10/17/2014	<1.0	<1.0	<1.0	<1.0	3.53	93.21
	1/20/2015	<1.0	<1.0	<1.0	<1.0	2.95	93.79
	4/28/2015	<1.0	<1.0	<1.0	<1.0	3.27	93.47
	7/13/2015	<1.0	<1.0	<1.0	<1.0	3.73	93.01
	10/5/2015	<1.0	<1.0	<1.0	<1.0	4.56	92.18
	1/25/2016	<1.0	<1.0	<1.0	<1.0	2.99	93.75
	4/18/2016	<1.0	<1.0	<1.0	<1.0	1.93	94.81
	7/20/2016	<1.00	<1.00	<1.00	<1.00	4.48	92.26
	10/11/2016	<1.00	<1.00	<1.00	<1.00	4.28	92.46
	1/16/2017	<1.00	<1.00	<1.00	<1.00	3.35	93.39
	4/28/2017	<1.00	<1.00	<1.00	<1.00	0.00	96.74
	7/20/2017	<1.00	<1.00	<1.00	<1.00	5.08	91.66



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

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	10/17/2017	<1.00	<1.00	<1.00	<1.00	4.19	92.55
	1/30/2018	<1.00	<1.00	<1.00	<1.00	3.42	93.32
	2/23/2018	Surveyed - Not Sampled				3.38	93.35
	4/18/2018	<1.00	<1.00	<1.00	<1.00	2.84	93.90
	7/20/2018	<1.00	<1.00	<1.00	<1.00	5.74	91.00
	10/30/2018	<1.00	<1.00	<1.00	<1.00	5.15	91.59
	11/9/2018	DTW Measurement Only - Not Sampled				4.93	91.81
	1/10/2019	<1.00	<1.00	<1.00	<1.00	4.19	92.55
MW05	1/21/2011	<1.0	<1.0	<1.0	2.0	3.36	93.51
	4/15/2011	<1.0	<1.0	<1.0	<1.0	3.94	92.93
	7/19/2011	<1.0	<1.0	<1.0	<1.0	3.04	93.83
	10/28/2011	<1.0	<1.0	<1.0	<1.0	3.51	93.36
	1/13/2012	<1.0	<1.0	<1.0	<1.0	2.96	93.91
	4/20/2012	<1.0	<1.0	<1.0	<1.0	3.79	93.08
	7/5/2012	<1.0	<1.0	<1.0	<1.0	3.71	93.16
	10/16/2012	<1.0	<1.0	<1.0	<1.0	5.87	91.00
	1/16/2013	<1.0	<1.0	<1.0	<1.0	5.68	91.19
	4/5/2013	<1.0	<1.0	<1.0	<1.0	3.52	93.35
	7/22/2013	<1.0	<1.0	<1.0	<1.0	4.76	92.11
	10/2/2013	1.4	<1.0	<1.0	<1.0	3.30	93.57
	10/30/2013	Surveyed - Not Sampled				3.25	93.52
	1/14/2014	<4.0	<4.0	<4.0	<4.0	3.49	93.38
	4/15/2014	<1.0	<1.0	<1.0	<1.0	3.27	93.50
	7/18/2014	<1.0	<1.0	<1.0	<1.0	3.58	93.19
	10/17/2014	<1.0	<1.0	<1.0	<1.0	3.48	93.29
	1/20/2015	<1.0	<1.0	<1.0	<1.0	2.87	93.90
	4/28/2015	<1.0	<1.0	<1.0	<1.0	3.19	93.58
	7/13/2015	<1.0	<1.0	<1.0	<1.0	3.64	93.13
	10/5/2015	<1.0	<1.0	<1.0	<1.0	4.43	92.34
	1/25/2016	<1.0	<1.0	<1.0	<1.0	2.95	93.82
	4/18/2016	<1.0	<1.0	<1.0	<1.0	1.83	94.94
	7/20/2016	<1.00	<1.00	<1.00	<1.00	4.35	92.42
	10/11/2016	<1.00	<1.00	<1.00	<1.00	4.17	92.60
	1/16/2017	<1.00	<1.00	<1.00	<1.00	3.25	93.52
	4/28/2017	<1.00	<1.00	<1.00	<1.00	0.00	96.77



**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**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)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	7/20/2017	<1.00	<1.00	<1.00	<1.00	5.07	91.70
	10/17/2017	<1.00	<1.00	<1.00	<1.00	3.91	92.86
	1/30/2018	<1.00	<1.00	<1.00	<1.00	3.38	93.39
	2/23/2018	Surveyed - Not Sampled				3.34	93.43
	4/18/2018	<1.00	<1.00	<1.00	<1.00	3.84	92.93
	7/20/2018	<1.00	<1.00	<1.00	<1.00	6.09	90.68
	10/30/2018	<1.00	<1.00	<1.00	<1.00	5.05	91.72
	11/9/2018	DTW Measurement Only - Not Sampled				4.80	91.97
	1/10/2019	<1.00	<1.00	<1.00	<1.00	4.09	92.68
MW06	7/19/2011	<1.0	<1.0	<1.0	<1.0	3.01	93.54
	10/28/2011	<1.0	1.2	<1.0	<1.0	3.50	93.05
	1/13/2012	<1.0	<1.0	<1.0	<1.0	2.95	93.60
	4/20/2012	<1.0	<1.0	<1.0	<1.0	3.88	92.67
	7/5/2012	<1.0	<1.0	<1.0	<1.0	3.84	92.71
	10/16/2012	<1.0	<1.0	<1.0	<1.0	5.89	90.66
	1/16/2013	<1.0	<1.0	<1.0	<1.0	5.70	90.85
	4/5/2013	<1.0	<1.0	<1.0	<1.0	3.43	93.12
	7/22/2013	<1.0	<1.0	<1.0	<1.0	4.70	91.85
	10/2/2013	<1.0	<1.0	<1.0	<1.0	4.25	92.30
	10/30/2013	Surveyed - Not Sampled				3.27	93.19
	1/14/2014	<4.0	<4.0	<4.0	<4.0	3.49	93.06
	4/15/2014	<1.0	<1.0	<1.0	<1.0	3.23	93.23
	7/18/2014	3.0	<1.0	<1.0	<1.0	3.59	92.87
	10/17/2014	<1.0	<1.0	<1.0	<1.0	3.47	92.99
	1/20/2015	<1.0	<1.0	<1.0	<1.0	2.87	93.59
	4/28/2015	<1.0	<1.0	<1.0	<1.0	3.12	93.34
	7/13/2015	<1.0	<1.0	<1.0	<1.0	3.59	92.87
	10/5/2015	<1.0	<1.0	<1.0	<1.0	4.36	92.10
	1/25/2016	<1.0	<1.0	<1.0	<1.0	2.97	93.49
	4/18/2016	<1.0	<1.0	<1.0	<1.0	1.75	94.71
	7/20/2016	<1.00	<1.00	<1.00	<1.00	4.38	92.08
	10/11/2016	<1.00	<1.00	<1.00	<1.00	4.21	92.25
	1/16/2017	<1.00	<1.00	<1.00	<1.00	3.29	93.17
	4/28/2017	<1.00	<1.00	<1.00	<1.00	0.00	96.46
	7/20/2017	<1.00	<1.00	<1.00	<1.00	5.04	91.42





**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**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)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	10/17/2017	<1.00	<1.00	<1.00	<1.00	3.96	92.50
	1/30/2018	<1.00	<1.00	<1.00	<1.00	3.41	93.05
	2/23/2018	Surveyed - Not Sampled				3.36	93.09
	4/18/2018	<1.00	<1.00	<1.00	<1.00	3.66	92.80
	7/20/2018	<1.00	<1.00	<1.00	<1.00	6.03	90.43
	10/30/2018	<1.00	<1.00	<1.00	<1.00	5.06	91.40
	11/9/2018	DTW Measurement Only - Not Sampled				4.87	91.59
	1/10/2019	<1.00	<1.00	<1.00	<1.00	4.15	92.31
MW07	7/19/2011	<1.0	<1.0	<1.0	<1.0	2.84	93.38
	10/28/2011	<1.0	<1.0	<1.0	<1.0	3.36	92.86
	1/13/2012	<1.0	<1.0	<1.0	<1.0	2.80	93.42
	4/20/2012	<1.0	<1.0	<1.0	<1.0	3.75	92.47
	7/5/2012	<1.0	<1.0	<1.0	<1.0	3.72	92.50
	10/16/2012	<1.0	<1.0	<1.0	<1.0	5.75	90.47
	1/16/2013	<1.0	<1.0	<1.0	<1.0	5.72	90.50
	4/5/2013	<1.0	<1.0	<1.0	<1.0	3.30	92.92
	7/22/2013	13	<1.0	<1.0	<1.0	4.61	91.61
	10/2/2013	1.4	<1.0	<1.0	<1.0	3.40	92.82
	10/30/2013	Surveyed - Not Sampled				3.16	93.06
	1/14/2014	<4.0	<4.0	<4.0	<4.0	3.29	92.93
	4/15/2014	<1.0	<1.0	<1.0	<1.0	3.17	93.05
	7/18/2014	1.0	<1.0	<1.0	<1.0	3.55	92.67
	10/17/2014	<1.0	<1.0	<1.0	<1.0	3.39	92.83
	1/20/2015	<1.0	<1.0	<1.0	<1.0	2.79	93.43
	4/28/2015	<1.0	<1.0	<1.0	<1.0	3.08	93.14
	7/13/2015	<1.0	<1.0	<1.0	<1.0	3.55	92.67
	10/5/2015	<1.0	<1.0	<1.0	<1.0	4.35	91.87
	1/25/2016	<1.0	<1.0	<1.0	<1.0	2.88	93.34
	4/18/2016	<1.0	<1.0	<1.0	<1.0	1.70	94.52
	7/20/2016	<4.00	<4.00	<4.00	<4.00	4.34	91.88
	10/11/2016	<1.00	<1.00	<1.00	<1.00	4.15	92.07
	1/16/2017	<1.00	<1.00	<1.00	<1.00	3.19	93.03
	4/28/2017	<1.00	<1.00	<1.00	<1.00	0.00	96.22
	7/20/2017	<1.00	<1.00	<1.00	<1.00	4.91	91.31
	10/17/2017	<1.00	<1.00	<1.00	<1.00	3.86	92.36



**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**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)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	1/30/2018	<1.00	<1.00	<1.00	<1.00	3.30	92.92
	2/23/2018	Surveyed - Not Sampled				3.27	92.94
	4/18/2018	<1.00	<1.00	<1.00	<1.00	3.71	92.51
	7/20/2018	<1.00	<1.00	<1.00	<1.00	6.09	90.13
	10/30/2018	<1.00	<1.00	<1.00	<1.00	4.97	91.25
	11/9/2018	DTW Measurement Only - Not Sampled				4.82	91.40
	1/10/2019	<1.00	<1.00	<1.00	<1.00	4.09	92.13
MW08	7/19/2011	4.2	<1.0	<1.0	<1.0	4.01	93.28
	10/28/2011	<1.0	<1.0	<1.0	<1.0	4.54	92.75
	1/13/2012	<1.0	<1.0	<1.0	<1.0	3.96	93.33
	4/20/2012	<1.0	<1.0	<1.0	<1.0	4.97	92.32
	7/5/2012	<1.0	<1.0	<1.0	<1.0	4.92	92.37
	10/16/2012	<1.0	<1.0	<1.0	<1.0	6.93	90.36
	1/16/2013	<1.0	<1.0	<1.0	<1.0	6.85	90.44
	4/5/2013	<1.0	<1.0	<1.0	<1.0	4.45	92.84
	7/22/2013	<1.0	<1.0	<1.0	<1.0	5.71	91.58
	10/2/2013	<1.0	<1.0	<1.0	<1.0	4.55	92.74
	10/30/2013	Surveyed - Not Sampled				4.29	92.97
	1/14/2014	<1.0	<1.0	<1.0	<1.0	4.49	92.80
	4/15/2014	<1.0	<1.0	<1.0	<1.0	4.41	92.85
	7/18/2014	<1.0	<1.0	<1.0	<1.0	4.68	92.58
	10/17/2014	<1.0	<1.0	<1.0	<1.0	4.55	92.71
	1/20/2015	<1.0	<1.0	<1.0	<1.0	3.95	93.31
	4/28/2015	<1.0	<1.0	<1.0	<1.0	4.19	93.07
	7/13/2015	<1.0	<1.0	<1.0	<1.0	4.66	92.60
	8/28/2015	Removed from monitoring				NM	NA
MW09	11/9/2018	<1.00	<1.00	<1.00	<1.00	4.58	91.58
	1/10/2019	<1.00	<1.00	<1.00	<1.00	3.84	92.32



**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BOTT 3-23, HSR-FISCHER 6-23**  
**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)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
MW10	11/9/2018	<1.00	<1.00	<1.00	<1.00	4.80	91.63
	1/10/2019	<1.00	<1.00	<1.00	<1.00	4.09	92.34
<b>COGCC Allowable Levels</b>		<b>5</b>	<b>1000</b>	<b>700</b>	<b>1400</b>		

Notes: COGCC - Colorado Oil and Gas Conservation Commission

Elev. - elevation

ft bgs - feet below ground surface

GW - groundwater

NA - not analyzed/not available

NM - not measured

µg/L - micrograms per liter

< - less than laboratory reporting limit

Bold indicates result exceeds allowable level

Excavation groundwater depth is approximate

Results in red indicate data from samples collected after start up of air sparge/soil vapor extraction remediation system.



April 25, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - HSR-Bott 3-23, Fischer 6-23

Project Number - KMG10821/WO#88438557

Attached are your analytical results for KMG - HSR-Bott 3-23, Fischer 6-23 received by Origins Laboratory, Inc. April 18, 2018. This project is associated with Origins project number Y804304-01.

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

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y804304-01	Water	April 18, 2018 11:15	04/18/2018 15:47
MW02	Y804304-02	Water	April 18, 2018 11:20	04/18/2018 15:47
MW03	Y804304-03	Water	April 18, 2018 11:25	04/18/2018 15:47
MW04	Y804304-04	Water	April 18, 2018 11:30	04/18/2018 15:47
MW05	Y804304-05	Water	April 18, 2018 11:35	04/18/2018 15:47
MW06	Y804304-06	Water	April 18, 2018 11:40	04/18/2018 15:47
MW07	Y804304-07	Water	April 18, 2018 11:45	04/18/2018 15:47

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.*

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/VO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**ORIGINS**  
LABORATORY, INC

7604304

1725 Elk Place, Denver, CO 80211  
Laboratory # - 303.433.1322

Client: LT Environmental, Inc.		Project Manager: Brian Sulzberger		Project Number: KMG10821/VO#88438557	
Project: KMG - HSR-Bott 3-23, Fischer 6-23		Sample Time		Container	
Number	Sample Identification	Matrix	Sample Date	Sample Time	Analyses
01-001	MM01	Water	4/18/18	1115	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C
02-001	MM02	Water	4/18/18	1120	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C
03-001	MM03	Water	4/18/18	1125	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C
04-001	MM04	Water	4/18/18	1130	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C
05-001	MM05	Water	4/18/18	1135	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C
06-001	MM06	Water	4/18/18	1140	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C
07-001	MM07	Water	4/18/18	1145	12_40mL Amber VOA Vial - HCL 3 BTEX by EPA 8260C

Relinquished By: [Signature] Date / Time: 4/18/18 15:47

Received By: [Signature] Date / Time: 4/18/18

Temperature on Receipt: 13.3

Turn Around Time: ☐ Same Day ☐ 24-hr ☒ 72-hr ☐ Standard ☐ 48-hr

Origins Laboratory, Inc.

[Signature]

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: YKCH304

Client: LTE

Client Project ID: KMG-HSR-Bott 3-23, Fischer 6-23

Checklist Completed by: SG

Shipped Via: HD

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

Date/time completed: 4/18/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 13.3 °C 1 °C 1 °C (Describe)

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>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? 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: [Signature] (Project Manager)

Date/Time Reviewed: 4.19.18

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW01

4/18/2018 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-01 (Water)

### BTEX by EPA 8260C

Benzene	271	10.0	ug/L	10	B8D2005	04/20/2018	04/23/2018	
Toluene	ND	1.00	"	1	"	"	04/20/2018	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	95.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW02

4/18/2018 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-02 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D2005	04/20/2018	04/20/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

101 % 84-121  
101 % 85-115  
98.8 % 84-114

" " "  
" " "  
" " "

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW03

4/18/2018 11:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-03 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D2005	04/20/2018	04/20/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

101 % 84-121  
101 % 85-115  
98.1 % 84-114

" " "  
" " "  
" " "

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW04

4/18/2018 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-04 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D2005	04/20/2018	04/20/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

101 % 84-121  
101 % 85-115  
97.5 % 84-114

" " "  
" " "  
" " "

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW05

4/18/2018 11:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-05 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D2005	04/20/2018	04/20/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"
Surrogate: Toluene-d8	101 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	96.7 %	84-114			"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW06

4/18/2018 11:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-06 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D2005	04/20/2018	04/20/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

102 % 84-121  
101 % 85-115  
96.4 % 84-114

" " "  
" " "  
" " "

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW07

4/18/2018 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y804304-07 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D2005	04/20/2018	04/20/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

101 % 84-121  
100 % 85-115  
96.9 % 84-114

" " "  
" " "  
" " "

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8D2005 - EPA 5030B (Water)**

**Blank (B8D2005-BLK1)**

Prepared: 04/20/2018 Analyzed: 04/20/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.9	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8D2005 - EPA 5030B (Water)</b>										
<b>LCS (B8D2005-BS1)</b>					Prepared: 04/20/2018 Analyzed: 04/20/2018					
Benzene	46.5	1.00	ug/L	50.0		92.9	73.3-129			
Toluene	48.2	1.00	"	50.0		96.4	76.2-123			
Ethylbenzene	49.7	1.00	"	50.0		99.5	73.6-130			
m,p-Xylene	98.0	2.00	"	100		98.0	76.1-126			
o-Xylene	50.1	1.00	"	50.0		100	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.2	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.5	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8D2005 - EPA 5030B (Water)**

Matrix Spike (B8D2005-MS1)		Source: Y804291-03			Prepared: 04/20/2018 Analyzed: 04/20/2018					
Benzene	54.0	1.00	ug/L	50.0	ND	108	74-130			
Toluene	56.4	1.00	"	50.0	ND	113	73-131			
Ethylbenzene	58.8	1.00	"	50.0	0.100	117	76-132			
m,p-Xylene	115	2.00	"	100	ND	115	69-139			
o-Xylene	57.7	1.00	"	50.0	ND	115	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.6	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.7	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8D2005 - EPA 5030B (Water)**

Matrix Spike Dup (B8D2005-MSD1)		Source: Y804291-03			Prepared: 04/20/2018 Analyzed: 04/20/2018					
Benzene	51.3	1.00	ug/L	50.0	ND	103	74-130	5.11	20	
Toluene	53.3	1.00	"	50.0	ND	107	73-131	5.60	20	
Ethylbenzene	54.8	1.00	"	50.0	0.100	109	76-132	7.06	20	
m,p-Xylene	108	2.00	"	100	ND	108	69-139	5.90	20	
o-Xylene	55.1	1.00	"	50.0	ND	110	74-131	4.73	20	
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.7	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.3	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### 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.

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.*



July 25, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR-Bott 3-23, Fischer 6-23    Project Number - KMG10821/WO#884385**

Attached are your analytical results for KMG - HSR-Bott 3-23, Fischer 6-23 received by Origins Laboratory, Inc. July 20, 2018. This project is associated with Origins project number Y807287-01.

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

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y807287-01	Water	July 20, 2018 12:00	07/20/2018 16:20
MW02	Y807287-02	Water	July 20, 2018 12:10	07/20/2018 16:20
MW03	Y807287-03	Water	July 20, 2018 12:20	07/20/2018 16:20
MW04	Y807287-04	Water	July 20, 2018 12:30	07/20/2018 16:20
MW05	Y807287-05	Water	July 20, 2018 12:40	07/20/2018 16:20
MW06	Y807287-06	Water	July 20, 2018 12:50	07/20/2018 16:20
MW07	Y807287-07	Water	July 20, 2018 13:00	07/20/2018 16:20

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

ORIGINS  
LABORATORY, INC

4807287

1725 Elk Place, Denver, CO 80211  
Laboratory # - 303.433.1322

Client: LT Environmental, Inc.		Project Manager: Brian Sulzberger					
Project: KMG - HSR-Bott 3-23, Fischer 6-23		Project Number: KMG10821/WO#88438557					
Number	Sample Identification	Matrix	Sample Date	Sample Time	Container	Qty	Analyses
01-001	MW01	Water	7-20-15	1200	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
02-001	MW02	Water		1210	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
03-001	MW03	Water		1210	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
04-001	MW04	Water		1230	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
05-001	MW05	Water		1240	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
06-001	MW06	Water		1250	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
07-001	MW07	Water		1300	Q2_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C

Relinquished By: [Signature] Date / Time: 7-20-15 16:20

Received By: [Signature] Date / Time: 7-20-15 16:20

Relinquished By: \_\_\_\_\_ Date / Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date / Time: \_\_\_\_\_

Temperature on Receipt: 12.9

Turn Around Time: ☐ 72-hr ☒ Standard

Same Day: ☐ 24-hr ☐ 48-hr

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: Y807287

Client: LTE

Client Project ID: KMG-HSR Bott 3-23, Fischer

Checklist Completed by: JG

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

Date/time completed: 1/23/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 12.9 °C 1 / 1 °C 1 / 1 °C 1 / 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"/>		<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 7/24/18

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

MW01

7/20/2018 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y807287-01 (Water)

BTEX by EPA 8260C

Benzene	165	4.00	ug/L	4	B8G2306	07/23/2018	07/23/2018	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	ND	4.00	"	"	"	"	"	U
Xylenes, total	ND	4.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.4 %	84-121			"	"	"
Surrogate: Toluene-d8	97.0 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	107 %	84-114			"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW02

7/20/2018 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y807287-02 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8G2306	07/23/2018	07/23/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	89.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.1 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	84-114			"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**MW03**

**7/20/2018 12:20:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y807287-03 (Water)**

**BTEX by EPA 8260C**

Benzene	ND	1.00	ug/L	1	B8G2306	07/23/2018	07/23/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.6 %	84-121	"	"	"
Surrogate: Toluene-d8	98.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	94.7 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**MW04**

**7/20/2018 12:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y807287-04 (Water)**

**BTEX by EPA 8260C**

Benzene	ND	1.00	ug/L	1	B8G2306	07/23/2018	07/23/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	91.4 %	84-121	"	"	"
Surrogate: Toluene-d8	93.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW05

7/20/2018 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y807287-05 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8G2306	07/23/2018	07/23/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	84-114			"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW06

7/20/2018 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y807287-06 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8G2306	07/23/2018	07/23/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"	

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW07

7/20/2018 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y807287-07 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8G2306	07/23/2018	07/23/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.1 %	84-121			"	"	"
Surrogate: Toluene-d8	103 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	84-114			"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8G2306 - EPA 5030B (Water)</b>										
<b>Blank (B8G2306-BLK1)</b>					Prepared: 07/23/2018 Analyzed: 07/23/2018					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.2	84-121			
Surrogate: Toluene-d8	57		"	62.5		91.6	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G2306 - EPA 5030B (Water)

**LCS (B8G2306-BS1)**

Prepared: 07/23/2018 Analyzed: 07/23/2018

Benzene	50.1	1.00	ug/L	50.0		100	73.3-129			
Toluene	45.8	1.00	"	50.0		91.5	76.2-123			
Ethylbenzene	47.4	1.00	"	50.0		94.9	73.6-130			
m,p-Xylene	95.5	2.00	"	100		95.5	76.1-126			
o-Xylene	48.7	1.00	"	50.0		97.4	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		91.4	84-121			
Surrogate: Toluene-d8	58		"	62.5		92.9	85-115			
Surrogate: 4-Bromofluorobenzene	68		"	62.5		109	84-114			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G2306 - EPA 5030B (Water)**

Matrix Spike (B8G2306-MS1)		Source: Y807287-02			Prepared: 07/23/2018 Analyzed: 07/23/2018					
Benzene	58.8	1.00	ug/L	50.0	ND	118	74-130			
Toluene	61.3	1.00	"	50.0	ND	123	73-131			
Ethylbenzene	54.3	1.00	"	50.0	ND	109	76-132			
m,p-Xylene	108	2.00	"	100	ND	108	69-139			
o-Xylene	53.9	1.00	"	50.0	ND	108	74-131			
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		93.1	84-121			
Surrogate: Toluene-d8	69		"	62.5		110	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8G2306 - EPA 5030B (Water)**

Matrix Spike Dup (B8G2306-MSD1)		Source: Y807287-02			Prepared: 07/23/2018 Analyzed: 07/23/2018					
Benzene	54.1	1.00	ug/L	50.0	ND	108	74-130	8.31	20	QR-02
Toluene	45.9	1.00	"	50.0	ND	91.9	73-131	28.7	20	
Ethylbenzene	51.2	1.00	"	50.0	ND	102	76-132	5.87	20	
m,p-Xylene	102	2.00	"	100	ND	102	69-139	6.50	20	
o-Xylene	51.3	1.00	"	50.0	ND	103	74-131	5.00	20	
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.2	84-121			
Surrogate: Toluene-d8	57		"	62.5		91.1	85-115			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		107	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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September 28, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR-Bott 3-23, Fischer 6-23 Project Number - KMG10821/WO#884385**

Attached are your analytical results for KMG - HSR-Bott 3-23, Fischer 6-23 received by Origins Laboratory, Inc. September 27, 2018. This project is associated with Origins project number Y809387-01.

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

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@7'	Y809387-01	Soil	September 27, 2018 14:35	09/27/2018 17:00
N02@7'	Y809387-02	Soil	September 27, 2018 14:40	09/27/2018 17:00
E01@7'	Y809387-03	Soil	September 27, 2018 14:45	09/27/2018 17:00
E02@7'	Y809387-04	Soil	September 27, 2018 14:50	09/27/2018 17:00
S01@7'	Y809387-05	Soil	September 27, 2018 14:55	09/27/2018 17:00
S02@7'	Y809387-06	Soil	September 27, 2018 15:00	09/27/2018 17:00
W01@7'	Y809387-07	Soil	September 27, 2018 15:05	09/27/2018 17:00
W02@7'	Y809387-08	Soil	September 27, 2018 15:10	09/27/2018 17:00
GW02	Y809387-10	Water	September 27, 2018 14:30	09/27/2018 17:00

Per the email from Andy on 09-28-18, sample ID GW01 was changed to GW02.

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.*

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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page 1 of 1

4809387

**ORIGINS**  
LABORATORY, INC

Client: LT Environmental, Inc.  
Address: 4600 W 60th Ave  
Arvada, CO 80003  
Telephone Number: 303 433 9788  
Email Address: bsulzberger@ltw.com

Project Manager: Brian Sulzberger  
Project Name: HSR Bott Fischer 3/23, Fischer  
Project Number: KMG 20821  
Samples Collected By: David Thomas

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysis					Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Sample	Other	BTEX	GC/MS	TRH	EC	pH	
N0107	9-27-18	1435	2							X							Run
N0207		1440	1														
F0107		1445	1														
F0207		1450	1														
S0107		1455	1														
S0207		1500	1														
W0107		1505	1														
W0207		1510	1														
B601		1515	1													Hold	
W0301		1430	3													Run	
Relinquished By:	Date: 9-27-18	Time: 1700		Received By:	Date: 9/27/18	Time: 1700		Turnaround Time:									
Relinquished By:	Date:	Time:		Received By:	Date:	Time:		Same Day:	24 Hr	48 Hr	72 Hr	Standard					

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

Temp Received: 26.1 | Date Results Needed

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 109387

Client: LTE

Client Project ID: KMG - HSR Bott Fischer 3/23

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 9/27/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1/261 °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"/>		<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)

9/27/18  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jefe Pellegrini*

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

N01@7'

9/27/2018 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 78.0 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	0.357	0.200	mg/kg	1	B812710	JTD	09/27/2018	09/28/2018	
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "  
Surrogate: Toluene-d8 95.8 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 105 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.69		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0725	0.00500	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

N02@7'

9/27/2018 2:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 66.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B812710	JTD	09/27/2018	09/28/2018	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "  
Surrogate: Toluene-d8 95.3 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 106 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.93		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0813	0.00500	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

E01@7'

9/27/2018 2:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 72.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B812710	JTD	09/27/2018	09/28/2018	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "  
Surrogate: Toluene-d8 93.9 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.80		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.160	0.00508	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

E02@7'

9/27/2018 2:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 71.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B812710	JTD	09/27/2018	09/28/2018	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 110 % 70-130 " " "  
Surrogate: Toluene-d8 93.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.72		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.134	0.00507	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

S01@7'

9/27/2018 2:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-05 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 80.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	23.9	5.00	mg/kg	25	B812710	JTD	09/27/2018	09/28/2018	
Benzene	ND	0.050	"	"	"	JTD	"	"	U
Toluene	ND	0.050	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	0.232	0.050	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "  
Surrogate: Toluene-d8 95.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.03		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.146	0.00500	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

S02@7'

9/27/2018 3:00:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-06 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	253	25.0	mg/kg	1	B8I2711	JTD	09/27/2018	09/28/2018	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 81.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	7.82	5.00	mg/kg	25	B8I2710	JTD	09/27/2018	09/28/2018	
Benzene	ND	0.050	"	"	"	JTD	"	"	U
Toluene	ND	0.050	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.050	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 95.6 % 70-130 " " "  
Surrogate: Toluene-d8 98.1 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.05		pH Units	1	B8I2705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.201	0.00500	mmhos/cm	"	B8I2706	OLAB	09/27/2018	"	
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

W01@7'

9/27/2018 3:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-07 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 72.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B812710	JTD	09/27/2018	09/28/2018	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "  
Surrogate: Toluene-d8 95.1 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.01		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.208	0.00500	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

W02@7'

9/27/2018 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y809387-08 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B812711	JTD	09/27/2018	09/28/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 75.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B812710	JTD	09/27/2018	09/28/2018	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 70-130 " " "  
Surrogate: Toluene-d8 97.0 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.97		pH Units	1	B812705	OLAB	09/27/2018	09/27/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.145	0.00500	mmhos/cm	"	B812706	OLAB	09/27/2018	"	
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## GW02

9/27/2018 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y809387-10 (Water)

### BTEX by EPA 8260C

Benzene	22.6	4.00	ug/L	4	B812707	JTD	09/27/2018	09/27/2018	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	39.7	4.00	"	"	"	JTD	"	"	
Xylenes, total	553	4.00	"	"	"	JTD	"	"	
Surrogate: 1,2-Dichloroethane-d4	95.3 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	94.3 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B812707 - EPA 5030B (Water)**

**Blank (B812707-BLK1)**

Prepared: 09/27/2018 Analyzed: 09/27/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5	96.6		84-121			
Surrogate: Toluene-d8	66		"	62.5	105		85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5	95.4		84-114			

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8I2707 - EPA 5030B (Water)**

**LCS (B8I2707-BS1)**

Prepared: 09/27/2018 Analyzed: 09/27/2018

Benzene	47.4	1.00	ug/L	50.0		94.9	73.3-129			
Toluene	43.4	1.00	"	50.0		86.8	76.2-123			
Ethylbenzene	48.7	1.00	"	50.0		97.4	73.6-130			
m,p-Xylene	98.1	2.00	"	100		98.1	76.1-126			
o-Xylene	49.4	1.00	"	50.0		98.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	60		"	62.5		95.7	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

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Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8I2707 - EPA 5030B (Water)**

Matrix Spike (B8I2707-MS1)		Source: Y809370-04			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	54.0	1.00	ug/L	50.0	ND	108	74-130			
Toluene	55.7	1.00	"	50.0	ND	111	73-131			
Ethylbenzene	58.6	1.00	"	50.0	0.100	117	76-132			
m,p-Xylene	116	2.00	"	100	ND	116	69-139			
o-Xylene	52.8	1.00	"	50.0	ND	106	74-131			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	84-121			
Surrogate: Toluene-d8	66		"	62.5		105	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.4	84-114			

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Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8I2707 - EPA 5030B (Water)**

Matrix Spike Dup (B8I2707-MSD1)		Source: Y809370-04			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	54.2	1.00	ug/L	50.0	ND	108	74-130	0.388	20	
Toluene	49.1	1.00	"	50.0	ND	98.2	73-131	12.7	20	
Ethylbenzene	62.1	1.00	"	50.0	0.100	124	76-132	5.78	20	
m,p-Xylene	123	2.00	"	100	ND	123	69-139	5.88	20	
o-Xylene	58.6	1.00	"	50.0	ND	117	74-131	10.5	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.9	84-121			
Surrogate: Toluene-d8	56		"	62.5		89.2	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	84-114			

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8I2710 - EPA 5030 (soil)</b>										
<b>Blank (B8I2710-BLK1)</b>					Prepared: 09/27/2018 Analyzed: 09/27/2018					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	58		"	62.5		93.1	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8I2710 - EPA 5030 (soil)</b>										
<b>Blank (B8I2710-BLK2)</b>					Prepared: 09/27/2018 Analyzed: 09/27/2018					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.1	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8I2710 - EPA 5030 (soil)										
LCS (B8I2710-BS1)					Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	0.107	0.002	mg/kg	0.100		107	77.1-124			
Toluene	0.107	0.002	"	0.100		107	74.5-128			
Ethylbenzene	0.115	0.002	"	0.100		115	66.4-127			
m,p-Xylene	0.229	0.004	"	0.200		114	76.6-124			
o-Xylene	0.116	0.002	"	0.100		116	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		98.5	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	70-130			

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8I2710 - EPA 5030 (soil)</b>										
<b>LCS (B8I2710-BS2)</b>					Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	0.108	0.002	mg/kg	0.100		108	77.1-124			
Toluene	0.105	0.002	"	0.100		105	74.5-128			
Ethylbenzene	0.109	0.002	"	0.100		109	66.4-127			
m,p-Xylene	0.217	0.004	"	0.200		109	76.6-124			
o-Xylene	0.105	0.002	"	0.100		105	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		94.4	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	70-130			

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8I2710 - EPA 5030 (soil)

Matrix Spike (B8I2710-MS1)		Source: Y809362-02			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	71.8-126			
Toluene	0.100	0.002	"	0.100	ND	100	65.1-130			
Ethylbenzene	0.103	0.002	"	0.100	ND	103	62.2-130			
m,p-Xylene	0.206	0.004	"	0.200	ND	103	46.5-137			
o-Xylene	0.096	0.002	"	0.100	ND	95.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.5	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	70-130			

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8I2710 - EPA 5030 (soil)

Matrix Spike (B8I2710-MS2)		Source: Y809368-01			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	0.095	0.002	mg/kg	0.100	ND	95.3	71.8-126			
Toluene	0.090	0.002	"	0.100	ND	90.5	65.1-130			
Ethylbenzene	0.090	0.002	"	0.100	ND	89.7	62.2-130			
m,p-Xylene	0.178	0.004	"	0.200	ND	89.2	46.5-137			
o-Xylene	0.087	0.002	"	0.100	ND	87.1	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	59		"	62.5		94.4	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

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4600 West 60th Avenue  
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Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8I2710 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B8I2710-MSD1)</b>										
					<b>Source: Y809362-02</b>					
										Prepared: 09/27/2018 Analyzed: 09/27/2018
Benzene	0.093	0.002	mg/kg	0.100	ND	93.1	71.8-126	10.7	11.3	
Toluene	0.094	0.002	"	0.100	ND	94.1	65.1-130	6.16	15.4	
Ethylbenzene	0.102	0.002	"	0.100	ND	102	62.2-130	0.955	19.6	
m,p-Xylene	0.206	0.004	"	0.200	ND	103	46.5-137	0.262	19.2	
o-Xylene	0.114	0.002	"	0.100	ND	114	54.2-134	17.4	17.9	
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.4	70-130			
Surrogate: Toluene-d8	61		"	62.5		96.9	70-130			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		107	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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8I2710 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B8I2710-MSD2)</b>	<b>Source: Y809368-01</b>				Prepared: 09/27/2018 Analyzed: 09/27/2018					
Benzene	0.093	0.002	mg/kg	0.100	ND	93.2	71.8-126	2.14	11.3	
Toluene	0.087	0.002	"	0.100	ND	87.4	65.1-130	3.44	15.4	
Ethylbenzene	0.086	0.002	"	0.100	ND	85.5	62.2-130	4.77	19.6	
m,p-Xylene	0.171	0.004	"	0.200	ND	85.6	46.5-137	4.06	19.2	
o-Xylene	0.084	0.002	"	0.100	ND	83.6	54.2-134	4.05	17.9	
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	59		"	62.5		93.8	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## Volatile Organic Compounds by GC/MS SW846 8260C - 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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## Extractable Petroleum Hydrocarbons by 8015C - 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 B8I2711 - EPA 3580

##### Blank (B8I2711-BLK1)

Prepared: 09/27/2018 Analyzed: 09/27/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	38		"	50.0		75.2	59-131			

##### Blank (B8I2711-BLK2)

Prepared: 09/27/2018 Analyzed: 09/27/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		82.4	59-131			

##### LCS (B8I2711-BS1)

Prepared: 09/27/2018 Analyzed: 09/27/2018

Diesel (C10-C28)	945	50.0	mg/kg	1000		94.5	64-121			
Residual Range Organics (C28-C40)	961	200	"	1000		96.1	58-124			
Surrogate: o-Terphenyl	47		"	50.0		94.5	59-131			

##### LCS (B8I2711-BS2)

Prepared: 09/27/2018 Analyzed: 09/27/2018

Diesel (C10-C28)	1010	50.0	mg/kg	1000		101	64-121			
Residual Range Organics (C28-C40)	885	200	"	1000		88.5	58-124			
Surrogate: o-Terphenyl	46		"	50.0		92.0	59-131			

##### Matrix Spike (B8I2711-MS1)

Source: Y809362-02

Prepared: 09/27/2018 Analyzed: 09/27/2018

Diesel (C10-C28)	922	50.0	mg/kg	1000	ND	92.2	53-125			
Residual Range Organics (C28-C40)	940	200	"	1000	5.90	93.4	47-133			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8I2711 - EPA 3580</b>										
<b>Matrix Spike (B8I2711-MS1)</b>		<b>Source: Y809362-02</b>			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Surrogate: o-Terphenyl	46		mg/kg	50.0		92.8	59-131			
<b>Matrix Spike (B8I2711-MS2)</b>		<b>Source: Y809386-01</b>			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Diesel (C10-C28)	1110	50.0	mg/kg	1000	ND	111	53-125			
Residual Range Organics (C28-C40)	1000	200	"	1000	15.3	98.5	47-133			
Surrogate: o-Terphenyl	49		"	50.0		98.9	59-131			
<b>Matrix Spike Dup (B8I2711-MSD1)</b>		<b>Source: Y809362-02</b>			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Diesel (C10-C28)	927	50.0	mg/kg	1000	ND	92.7	53-125	0.464	20	
Residual Range Organics (C28-C40)	945	200	"	1000	5.90	94.0	47-133	0.580	20	
Surrogate: o-Terphenyl	46		"	50.0		93.0	59-131			
<b>Matrix Spike Dup (B8I2711-MSD2)</b>		<b>Source: Y809386-01</b>			Prepared: 09/27/2018 Analyzed: 09/27/2018					
Diesel (C10-C28)	1070	50.0	mg/kg	1000	ND	107	53-125	4.10	20	
Residual Range Organics (C28-C40)	974	200	"	1000	15.3	95.9	47-133	2.70	20	
Surrogate: o-Terphenyl	50		"	50.0		100	59-131			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## 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 B8I2705 - NO PREP</b>										
<b>Duplicate (B8I2705-DUP1)</b>	<b>Source: Y809365-01</b>				Prepared: 09/27/2018 Analyzed: 09/27/2018					
pH	8.21		pH Units		8.41			2.41	25	
<b>Duplicate (B8I2705-DUP2)</b>	<b>Source: Y809387-01</b>				Prepared: 09/27/2018 Analyzed: 09/27/2018					
pH	8.74		pH Units		8.69			0.574	25	
<b>Batch B8I2706 - NO PREP</b>										
<b>Blank (B8I2706-BLK1)</b>	Prepared: 09/27/2018 Analyzed: 09/27/2018									
Specific Conductance (EC)	0.00220	0.00500	mmhos/cm							
<b>Blank (B8I2706-BLK2)</b>	Prepared: 09/27/2018 Analyzed: 09/27/2018									
Specific Conductance (EC)	0.00230	0.00500	mmhos/cm							
<b>Duplicate (B8I2706-DUP1)</b>	<b>Source: Y809365-01</b>				Prepared: 09/27/2018 Analyzed: 09/27/2018					
Specific Conductance (EC)	1.28	0.00500	mmhos/cm		1.19			6.60	25	
<b>Duplicate (B8I2706-DUP2)</b>	<b>Source: Y809387-01</b>				Prepared: 09/27/2018 Analyzed: 09/27/2018					
Specific Conductance (EC)	0.0575	0.00500	mmhos/cm		0.0725			23.1	25	

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### 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.

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 05, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR-Bott 3-23, Fischer 6-23   Project Number - KMG10821/WO#884385**

Attached are your analytical results for KMG - HSR-Bott 3-23, Fischer 6-23 received by Origins Laboratory, Inc. October 31, 2018. This project is associated with Origins project number Y810455-01.

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

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW02	Y810455-01	Water	October 30, 2018 10:35	10/31/2018 09:00
MW03	Y810455-02	Water	October 30, 2018 10:41	10/31/2018 09:00
MW04	Y810455-03	Water	October 30, 2018 10:50	10/31/2018 09:00
MW05	Y810455-04	Water	October 30, 2018 11:01	10/31/2018 09:00
MW06	Y810455-05	Water	October 30, 2018 11:12	10/31/2018 09:00
MW07	Y810455-06	Water	October 30, 2018 11:21	10/31/2018 09:00

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

ORIGINS  
LABORATORY, INC

7610455

1725 Elk Place, Denver, CO 80211  
Laboratory # - 303.433.1322

Client: LT Environmental, Inc.		Project Manager: Brian Sulzberger						
Project: KMG - HSR-Bott 3-23, Fischer 6-23		Project Number: KMG10821/WO#8438557						
Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analysis
01-001	MM01	Water	10-30-18			12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
02-001	MM02	Water		1035	ASJ	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
03-001	MM03	Water		1041		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
04-001	MM04	Water		1050		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
05-001	MM05	Water		1101		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
06-001	MM06	Water		1112		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
07-001	MM07	Water		1121		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C

Temperature on Receipt:  
Turn Around Time:  
Same Day: ☐ 72-hr: ☐  
24-hr: ☐ Standard: ☒  
48-hr: ☐

Relinquished By: *[Signature]* Date / Time: 10-31-18 0900  
Received By: *[Signature]* Date / Time: 10-31-18 0900

Relinquished By: *[Signature]* Date / Time: 10-31-18  
Received By: *[Signature]* Date / Time: 10-31-18

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y810455

Client: LTE

Client Project ID: KMG - HSR Bott Fischer 3/23, F

Checklist Completed by: JG

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

Date/time completed: 10/31/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4.0 °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 checked="" 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 type="checkbox"/>	<input checked="" 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) JW

Date/Time Reviewed 11/1/18

Origins Laboratory, Inc.

*Jen Pellegrini*

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**MW02**

**10/30/2018 10:35:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y810455-01 (Water)**

**BTEX by EPA 8260C**

Benzene	ND	1.00	ug/L	1	B8K0101	JTD	11/01/2018	11/01/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.8 %	84-121	"	"	"
Surrogate: Toluene-d8	99.1 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**MW03**

**10/30/2018 10:41:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y810455-02 (Water)**

**BTEX by EPA 8260C**

Benzene	ND	1.00	ug/L	1	B8K0101	JTD	11/01/2018	11/01/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.4 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW04

10/30/2018 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y810455-03 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K0101	JTD	11/01/2018	11/01/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.6 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW05

10/30/2018 11:01:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y810455-04 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K0101	JTD	11/01/2018	11/01/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW06

10/30/2018 11:12:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y810455-05 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K0101	JTD	11/01/2018	11/01/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.2 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.4 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

MW07

10/30/2018 11:21:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y810455-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K0101	JTD	11/01/2018	11/01/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8K0101 - EPA 5030B (Water)**

**Blank (B8K0101-BLK1)**

Prepared: 11/01/2018 Analyzed: 11/01/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5	101		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.6		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8K0101 - EPA 5030B (Water)**

**LCS (B8K0101-BS1)**

Prepared: 11/01/2018 Analyzed: 11/01/2018

Benzene	41.7	1.00	ug/L	50.0		83.4	73.3-129			
Toluene	42.2	1.00	"	50.0		84.5	76.2-123			
Ethylbenzene	43.7	1.00	"	50.0		87.5	73.6-130			
m,p-Xylene	85.1	2.00	"	100		85.1	76.1-126			
o-Xylene	40.3	1.00	"	50.0		80.6	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.3	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8K0101 - EPA 5030B (Water)**

Matrix Spike (B8K0101-MS1)		Source: Y810455-01			Prepared: 11/01/2018 Analyzed: 11/01/2018					
Benzene	47.9	1.00	ug/L	50.0	ND	95.7	74-130			
Toluene	47.8	1.00	"	50.0	ND	95.6	73-131			
Ethylbenzene	49.8	1.00	"	50.0	0.100	99.4	76-132			
m,p-Xylene	98.0	2.00	"	100	0.300	97.8	69-139			
o-Xylene	47.2	1.00	"	50.0	0.100	94.2	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.2	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.2	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8K0101 - EPA 5030B (Water)**

Matrix Spike Dup (B8K0101-MSD1)		Source: Y810455-01			Prepared: 11/01/2018 Analyzed: 11/01/2018					
Benzene	44.5	1.00	ug/L	50.0	ND	89.0	74-130	7.32	20	
Toluene	44.8	1.00	"	50.0	ND	89.7	73-131	6.39	20	
Ethylbenzene	46.3	1.00	"	50.0	0.100	92.3	76-132	7.31	20	
m,p-Xylene	91.4	2.00	"	100	0.300	91.1	69-139	6.98	20	
o-Xylene	44.3	1.00	"	50.0	0.100	88.4	74-131	6.40	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.5	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.6	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### 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.

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 14, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR-Bott 3-23, Fischer 6-23 Project Number - KMG10821/WO#884385**

Attached are your analytical results for KMG - HSR-Bott 3-23, Fischer 6-23 received by Origins Laboratory, Inc. November 09, 2018. This project is associated with Origins project number Y811179-01.

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



LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01R	Y811179-01	Water	November 9, 2018 12:00	11/09/2018 14:57
MW09	Y811179-02	Water	November 9, 2018 12:30	11/09/2018 14:57
MW10	Y811179-03	Water	November 9, 2018 13:00	11/09/2018 14:57

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.*

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

# ORIGINS

LABORATORY, INC



www.originslaboratory.com

4611179

page 1 of

Client: LT Environmental  
 Address: 4600 W 60<sup>th</sup> Ave  
Avondale, CO 80003  
 Telephone Number: 303 433 9788  
 Email Address: bsulzberger@ltenv

Project Manager: Brian Sulzberger  
 Project Name: HSR-Batt/Fischer  
 Project Number: KMG 10821  
 Samples Collected By: Daniel Thomas

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
MW01R	11-9-18	1300	2										1
MW04	↓	1330	3										2
MW50	↓	1300	2										3
													4
													5
													6
													7
													8
													9
													10
Relinquished By: 	Date: 11-9-18	Time: 1457		Received By: 				Date: 11/9/18	Time: 1615	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard			
Relinquished By:	Date:	Time:		Received By:				Date:	Time:				

Temp Received- 13.3

Date Results Needed

Origins Laboratory, Inc.

Jeff Pellipini

*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.*

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y611179

Client: LTE

Client Project ID: KMG - Bott 3-23 / Fischer

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 11/12/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 13.3 °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"/>		<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) JG

Date/Time Reviewed 11/13/18

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

MW01R

11/9/2018 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y811179-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K1304	JTD	11/13/2018	11/13/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121	"	"	"
Surrogate: Toluene-d8	99.4 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	96.0 %	84-114	"	"	"

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.

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW09

11/9/2018 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y811179-02 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K1304	JTD	11/13/2018	11/13/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121	"	"	"
Surrogate: Toluene-d8	98.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	96.4 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW10

11/9/2018 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y811179-03 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8K1304	JTD	11/13/2018	11/13/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121	"	"	"
Surrogate: Toluene-d8	99.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	96.0 %	84-114	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8K1304 - EPA 5030B (Water)</b>										
<b>Blank (B8K1304-BLK1)</b>					Prepared: 11/13/2018 Analyzed: 11/13/2018					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		102	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.7	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8K1304 - EPA 5030B (Water)										
LCS (B8K1304-BS1)					Prepared: 11/13/2018 Analyzed: 11/13/2018					
Benzene	54.3	1.00	ug/L	50.0		109	73.3-129			
Toluene	53.5	1.00	"	50.0		107	76.2-123			
Ethylbenzene	56.2	1.00	"	50.0		112	73.6-130			
m,p-Xylene	111	2.00	"	100		111	76.1-126			
o-Xylene	55.6	1.00	"	50.0		111	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.2	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8K1304 - EPA 5030B (Water)**

Matrix Spike (B8K1304-MS1)		Source: Y811170-02			Prepared: 11/13/2018 Analyzed: 11/13/2018					
Benzene	50.8	1.00	ug/L	50.0	ND	102	74-130			
Toluene	50.0	1.00	"	50.0	ND	99.9	73-131			
Ethylbenzene	52.3	1.00	"	50.0	0.270	104	76-132			
m,p-Xylene	103	2.00	"	100	ND	103	69-139			
o-Xylene	51.9	1.00	"	50.0	0.150	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.8	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8K1304 - EPA 5030B (Water)**

Matrix Spike Dup (B8K1304-MSD1)		Source: Y811170-02			Prepared: 11/13/2018 Analyzed: 11/13/2018					
Benzene	50.0	1.00	ug/L	50.0	ND	100	74-130	1.63	20	
Toluene	49.2	1.00	"	50.0	ND	98.5	73-131	1.45	20	
Ethylbenzene	50.7	1.00	"	50.0	0.270	101	76-132	3.05	20	
m,p-Xylene	100	2.00	"	100	ND	100	69-139	2.85	20	
o-Xylene	50.7	1.00	"	50.0	0.150	101	74-131	2.20	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		100	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.8	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		102	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### 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.

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.*



January 16, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR-Bott 3-23, Fischer 6-23 Project Number - KMG10821/WO#884385**

Attached are your analytical results for KMG - HSR-Bott 3-23, Fischer 6-23 received by Origins Laboratory, Inc. January 10, 2019. This project is associated with Origins project number Y901141-01.

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

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01R	Y901141-01	Water	January 10, 2019 12:00	01/10/2019 15:32
MW02	Y901141-02	Water	January 10, 2019 12:05	01/10/2019 15:32
MW03	Y901141-03	Water	January 10, 2019 12:10	01/10/2019 15:32
MW04	Y901141-04	Water	January 10, 2019 12:15	01/10/2019 15:32
MW05	Y901141-05	Water	January 10, 2019 12:20	01/10/2019 15:32
MW06	Y901141-06	Water	January 10, 2019 12:25	01/10/2019 15:32
MW07	Y901141-07	Water	January 10, 2019 12:30	01/10/2019 15:32
MW09	Y901141-08	Water	January 10, 2019 12:35	01/10/2019 15:32
MW10	Y901141-09	Water	January 10, 2019 12:40	01/10/2019 15:32

Origins Laboratory, Inc.



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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4901141

Client: LTE

Client Project ID: KMG - HSR-Bott 3-23, Fischer 6-23

Checklist Completed by: Don Lee

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

Date/time completed: 1-11-19

Airbill #: NP

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

Cooler Number/Temperature: ✓ 14.3 °C ✓ 1 °C ✓ 1 °C ✓ 1 °C (Describe)

Thermometer ID: 6003

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? 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) NP

Date/Time Reviewed 1/14/19

Origins Laboratory, Inc.

*Jefe Pellegrini*

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW01R

1/10/2019 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-01 (Water)

### BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	4.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	4.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.8 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
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Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW02

1/10/2019 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-02 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.4 %	84-121	"	"	"
Surrogate: Toluene-d8	102 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	84-114	"	"	"

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
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Project: KMG - HSR-Bott 3-23, Fischer 6-23

**MW03**

**1/10/2019 12:10:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901141-03 (Water)**

**BTEX by EPA 8260C**

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.0 %	84-121	"	"	"
Surrogate: Toluene-d8	98.9 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.7 %	84-114	"	"	"

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
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Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW04

1/10/2019 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-04 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



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Project: KMG - HSR-Bott 3-23, Fischer 6-23

## MW05

1/10/2019 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-05 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



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## MW06

1/10/2019 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-06 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



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## MW07

1/10/2019 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-07 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121	"	"	"
Surrogate: Toluene-d8	98.9 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



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## MW09

1/10/2019 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-08 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



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## MW10

1/10/2019 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y901141-09 (Water)

### BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1405	JTD	01/14/2019	01/14/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121	"	"	"
Surrogate: Toluene-d8	98.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.7 %	84-114	"	"	"

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1405 - EPA 5030B (Water)</b>										
<b>Blank (B9A1405-BLK1)</b>					Prepared: 01/14/2019 Analyzed: 01/14/2019					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.2	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1405 - EPA 5030B (Water)**

**Blank (B9A1405-BLK2)**

Prepared: 01/14/2019 Analyzed: 01/14/2019

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5	98.3		84-121			
Surrogate: Toluene-d8	63		"	62.5	101		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		84-114			

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Project: KMG - HSR-Bott 3-23, Fischer 6-23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1405 - EPA 5030B (Water)</b>										
<b>LCS (B9A1405-BS1)</b>					Prepared: 01/14/2019 Analyzed: 01/14/2019					
Benzene	45.5	1.00	ug/L	50.0		91.1	73.3-129			
Toluene	47.1	1.00	"	50.0		94.2	76.2-123			
Ethylbenzene	47.7	1.00	"	50.0		95.3	73.6-130			
m,p-Xylene	95.1	2.00	"	100		95.1	76.1-126			
o-Xylene	47.7	1.00	"	50.0		95.4	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.0	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	84-114			

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1405 - EPA 5030B (Water)**

**LCS (B9A1405-BS2)**

Prepared: 01/14/2019 Analyzed: 01/14/2019

Benzene	41.7	1.00	ug/L	50.0		83.4	73.3-129
Toluene	42.3	1.00	"	50.0		84.6	76.2-123
Ethylbenzene	42.8	1.00	"	50.0		85.6	73.6-130
m,p-Xylene	85.3	2.00	"	100		85.3	76.1-126
o-Xylene	43.3	1.00	"	50.0		86.6	76.6-124
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.8	84-121
Surrogate: Toluene-d8	63		"	62.5		101	85-115
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1405 - EPA 5030B (Water)**

Matrix Spike (B9A1405-MS1)		Source: Y901141-02			Prepared: 01/14/2019 Analyzed: 01/14/2019					
Benzene	44.4	1.00	ug/L	50.0	ND	88.8	74-130			
Toluene	43.9	1.00	"	50.0	ND	87.8	73-131			
Ethylbenzene	44.7	1.00	"	50.0	ND	89.3	76-132			
m,p-Xylene	89.6	2.00	"	100	ND	89.6	69-139			
o-Xylene	45.9	1.00	"	50.0	ND	91.8	74-131			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.5	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.5	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	84-114			

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1405 - EPA 5030B (Water)**

Matrix Spike (B9A1405-MS2)		Source: Y901141-03			Prepared: 01/14/2019 Analyzed: 01/14/2019					
Benzene	39.9	1.00	ug/L	50.0	ND	79.9	74-130			
Toluene	39.7	1.00	"	50.0	ND	79.5	73-131			
Ethylbenzene	39.8	1.00	"	50.0	ND	79.5	76-132			
m,p-Xylene	80.1	2.00	"	100	ND	80.1	69-139			
o-Xylene	40.5	1.00	"	50.0	ND	81.1	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.5	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.0	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1405 - EPA 5030B (Water)**

Matrix Spike Dup (B9A1405-MSD1)		Source: Y901141-02			Prepared: 01/14/2019 Analyzed: 01/14/2019					
Benzene	42.3	1.00	ug/L	50.0	ND	84.5	74-130	4.98	20	
Toluene	43.2	1.00	"	50.0	ND	86.3	73-131	1.70	20	
Ethylbenzene	44.2	1.00	"	50.0	ND	88.5	76-132	0.922	20	
m,p-Xylene	88.0	2.00	"	100	ND	88.0	69-139	1.75	20	
o-Xylene	44.9	1.00	"	50.0	ND	89.8	74-131	2.11	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.3	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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*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.*

LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: KMG10821/WO#88438557  
Project: KMG - HSR-Bott 3-23, Fischer 6-23

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1405 - EPA 5030B (Water)**

Matrix Spike Dup (B9A1405-MSD2)		Source: Y901141-03			Prepared: 01/14/2019 Analyzed: 01/14/2019					
Benzene	42.9	1.00	ug/L	50.0	ND	85.7	74-130	7.08	20	
Toluene	42.8	1.00	"	50.0	ND	85.5	73-131	7.35	20	
Ethylbenzene	43.3	1.00	"	50.0	ND	86.7	76-132	8.57	20	
m,p-Xylene	86.1	2.00	"	100	ND	86.1	69-139	7.28	20	
o-Xylene	44.4	1.00	"	50.0	ND	88.9	74-131	9.18	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.1	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.2	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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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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