ANALYTICAL REPORT

July 15, 2021

Revised Report

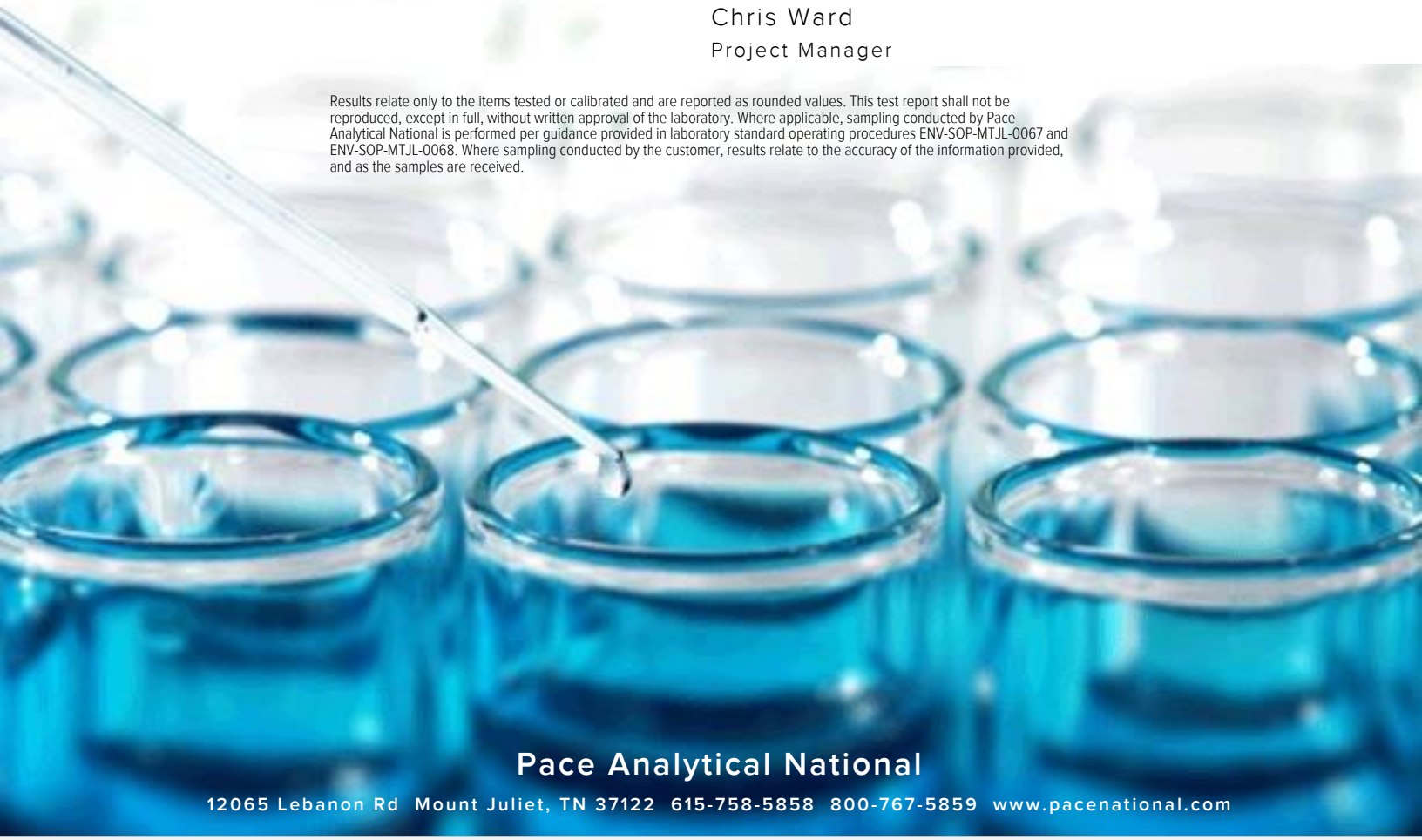
Environmental Works Inc

Sample Delivery Group:	L1371155
Samples Received:	06/25/2021
Project Number:	211813
Description:	Taproot Sampling
Site:	467382
Report To:	Adam Kubat 4155 Darley Avenue Suite B Boulder, CO 80305

Entire Report Reviewed By:

Chris Ward

Project Manager



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SW8-3 L1371155-01 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 13:00 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:38	07/03/21 17:38	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 07:58	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696297	1	06/28/21 09:00	06/28/21 11:29	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 16:46	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:01	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 18:36	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699642	1	06/29/21 08:22	07/04/21 03:47	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 14:02	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 11:21	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1697992	1	07/01/21 11:15	07/01/21 21:43	LEA	Mt. Juliet, TN

SW7-3 L1371155-02 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 12:30 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:41	07/03/21 17:41	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 08:03	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696297	1	06/28/21 09:00	06/28/21 11:29	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 16:49	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:04	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 18:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699642	1	06/29/21 08:22	07/04/21 04:10	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 14:21	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 12:00	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1697992	1	07/01/21 11:15	07/01/21 22:01	LEA	Mt. Juliet, TN

SW6-3 L1371155-03 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 12:00 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:44	07/03/21 17:44	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 08:29	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696297	1	06/28/21 09:00	06/28/21 11:29	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 16:57	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:07	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 18:50	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699642	1	06/29/21 08:22	07/04/21 04:31	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 14:40	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1701405	1	07/07/21 15:39	07/08/21 11:22	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1697992	1	07/01/21 11:15	07/01/21 22:19	LEA	Mt. Juliet, TN

SW5-3 L1371155-04 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 11:40 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:47	07/03/21 17:47	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 08:34	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696297	1	06/28/21 09:00	06/28/21 11:29	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:00	KMG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SW5-3 L1371155-04 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 11:40 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:10	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 18:53	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699642	1	06/29/21 08:22	07/04/21 04:53	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 14:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 12:26	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 18:07	AO	Mt. Juliet, TN

SW4-3 L1371155-05 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 11:00 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:50	07/03/21 17:50	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 08:40	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696297	1	06/28/21 09:00	06/28/21 11:29	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:03	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:12	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 18:57	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 14:11	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 15:18	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 12:39	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 18:27	AO	Mt. Juliet, TN

SW3-3 L1371155-06 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 10:20 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:52	07/03/21 17:52	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 08:55	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:06	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:15	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:00	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 14:54	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 15:37	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 12:52	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 18:47	AO	Mt. Juliet, TN

SW2-3 L1371155-07 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 09:45 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:55	07/03/21 17:55	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 09:00	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:10	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:18	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:04	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 15:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 15:56	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 13:05	JN	Mt. Juliet, TN

SW2-3 L1371155-07 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 09:45 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 19:06	AO	Mt. Juliet, TN

SS2 L1371155-08 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 13:15 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 17:58	07/03/21 17:58	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 09:05	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:13	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:26	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:07	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 15:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 16:15	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698688	1	07/02/21 17:26	07/03/21 13:18	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 19:26	AO	Mt. Juliet, TN

SS3 L1371155-09 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 13:25 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 18:01	07/03/21 18:01	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 09:11	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:16	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:29	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:11	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 16:05	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 16:34	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698689	1	07/01/21 15:30	07/03/21 01:25	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 19:46	AO	Mt. Juliet, TN

SS4 L1371155-10 Solid

Collected by: Adam Kubat | Collected date/time: 06/24/21 13:35 | Received date/time: 06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 18:09	07/03/21 18:09	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 09:16	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:19	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:32	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:14	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 16:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 16:53	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698689	1	07/01/21 15:30	07/03/21 01:38	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 20:06	AO	Mt. Juliet, TN

SS5 L1371155-11 Solid

Collected by	Collected date/time	Received date/time
Adam Kubat	06/24/21 13:45	06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 18:12	07/03/21 18:12	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 09:26	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:22	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:35	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:17	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 16:52	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 17:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698689	1	07/01/21 15:30	07/03/21 01:51	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 20:26	AO	Mt. Juliet, TN

SS6 L1371155-12 Solid

Collected by	Collected date/time	Received date/time
Adam Kubat	06/24/21 13:55	06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 18:15	07/03/21 18:15	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1698241	1	07/05/21 08:20	07/07/21 09:31	DGR	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:25	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:38	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:21	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1699775	1	06/29/21 08:22	07/04/21 17:16	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1697004	1	06/29/21 08:22	06/29/21 17:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1698690	1	07/02/21 17:28	07/03/21 14:48	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1698697	1	07/02/21 14:33	07/02/21 20:46	AO	Mt. Juliet, TN

BS1 L1371155-13 Solid

Collected by	Collected date/time	Received date/time
Adam Kubat	06/24/21 14:00	06/25/21 14:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1697183	1	07/03/21 18:18	07/03/21 18:18	KMG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1696489	1	06/28/21 12:00	06/28/21 16:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1697435	1	07/01/21 14:41	07/01/21 19:27	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1695994	1	06/29/21 17:43	07/02/21 17:34	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1697170	1	06/30/21 08:29	07/06/21 13:41	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1695995	5	06/29/21 17:50	06/30/21 19:31	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward
Project Manager

Report Revision History

Level II Report - Version 1: 07/09/21 14:39

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.19		1	07/03/2021 17:38	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 07:58	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.34	T8	1	06/28/2021 11:29	WG1696297

Sample Narrative:

L1371155-01 WG1696297: 8.34 at 24.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	420		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	595		0.500	1	07/02/2021 16:46	WG1695994
Cadmium	ND		0.500	1	07/02/2021 16:46	WG1695994
Copper	14.5		2.00	1	07/02/2021 16:46	WG1695994
Lead	11.5		0.500	1	07/02/2021 16:46	WG1695994
Nickel	13.2		2.00	1	07/02/2021 16:46	WG1695994
Selenium	2.01		2.00	1	07/02/2021 16:46	WG1695994
Silver	ND		1.00	1	07/02/2021 16:46	WG1695994
Zinc	50.1		5.00	1	07/02/2021 16:46	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.00		0.200	1	07/06/2021 13:01	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.84		1.00	5	06/30/2021 18:36	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 03:47	WG1699642
(S) a,a,a-Trifluorotoluene(FID)	*87.5*		*77.0-120*		*07/04/2021 03:47*	WG1699642

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 14:02	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 14:02	WG1697004
Toluene	ND		0.00500	1	06/29/2021 14:02	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:02	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:02	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 14:02	WG1697004
(S) Toluene-d8	*101*		*75.0-131*		*06/29/2021 14:02*	WG1697004
(S) 4-Bromofluorobenzene	*97.8*		*67.0-138*		*06/29/2021 14:02*	WG1697004
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/29/2021 14:02*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND	J3 J6	4.00	1	07/03/2021 11:21	WG1698688
C28-C36 Motor Oil Range	ND		4.00	1	07/03/2021 11:21	WG1698688
(S) o-Terphenyl	*30.5*		*18.0-148*		*07/03/2021 11:21*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Acenaphthene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Acenaphthylene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Benzo(a)anthracene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Benzo(a)pyrene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Benzo(b)fluoranthene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Benzo(g,h,i)perylene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Benzo(k)fluoranthene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Chrysene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Dibenz(a,h)anthracene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Fluoranthene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Fluorene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Naphthalene	ND		0.0200	1	07/01/2021 21:43	WG1697992
Phenanthrene	ND		0.00600	1	07/01/2021 21:43	WG1697992
Pyrene	ND		0.00600	1	07/01/2021 21:43	WG1697992
1-Methylnaphthalene	ND		0.0200	1	07/01/2021 21:43	WG1697992
2-Methylnaphthalene	ND		0.0200	1	07/01/2021 21:43	WG1697992
2-Chloronaphthalene	ND		0.0200	1	07/01/2021 21:43	WG1697992
(S) p-Terphenyl-d14	*85.2*		*23.0-120*		*07/01/2021 21:43*	WG1697992
(S) Nitrobenzene-d5	*72.6*		*14.0-149*		*07/01/2021 21:43*	WG1697992
(S) 2-Fluorobiphenyl	*70.5*		*34.0-125*		*07/01/2021 21:43*	WG1697992

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.87		1	07/03/2021 17:41	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 08:03	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.09	T8	1	06/28/2021 11:29	WG1696297

Sample Narrative:
L1371155-02 WG1696297: 8.09 at 25C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	526		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	213		0.500	1	07/02/2021 16:49	WG1695994
Cadmium	ND		0.500	1	07/02/2021 16:49	WG1695994
Copper	14.1		2.00	1	07/02/2021 16:49	WG1695994
Lead	9.78		0.500	1	07/02/2021 16:49	WG1695994
Nickel	13.1		2.00	1	07/02/2021 16:49	WG1695994
Selenium	3.00		2.00	1	07/02/2021 16:49	WG1695994
Silver	ND		1.00	1	07/02/2021 16:49	WG1695994
Zinc	50.0		5.00	1	07/02/2021 16:49	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.654		0.200	1	07/06/2021 13:04	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.88		1.00	5	06/30/2021 18:39	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 04:10	WG1699642
(S) a,a,a-Trifluorotoluene(FID)	*86.8*		*77.0-120*		*07/04/2021 04:10*	WG1699642

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 14:21	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 14:21	WG1697004
Toluene	ND		0.00500	1	06/29/2021 14:21	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:21	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:21	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 14:21	WG1697004
(S) Toluene-d8	*101*		*75.0-131*		*06/29/2021 14:21*	WG1697004
(S) 4-Bromofluorobenzene	*101*		*67.0-138*		*06/29/2021 14:21*	WG1697004
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/29/2021 14:21*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 12:00	WG1698688
C28-C36 Motor Oil Range	ND		4.00	1	07/03/2021 12:00	WG1698688
(S) o-Terphenyl	*36.4*		*18.0-148*		*07/03/2021 12:00*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Acenaphthene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Acenaphthylene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Benzo(a)anthracene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Benzo(a)pyrene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Benzo(b)fluoranthene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Benzo(g,h,i)perylene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Benzo(k)fluoranthene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Chrysene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Dibenz(a,h)anthracene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Fluoranthene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Fluorene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Naphthalene	ND		0.0200	1	07/01/2021 22:01	WG1697992
Phenanthrene	ND		0.00600	1	07/01/2021 22:01	WG1697992
Pyrene	ND		0.00600	1	07/01/2021 22:01	WG1697992
1-Methylnaphthalene	ND		0.0200	1	07/01/2021 22:01	WG1697992
2-Methylnaphthalene	ND		0.0200	1	07/01/2021 22:01	WG1697992
2-Chloronaphthalene	ND		0.0200	1	07/01/2021 22:01	WG1697992
(S) p-Terphenyl-d14	*72.5*		*23.0-120*		*07/01/2021 22:01*	WG1697992
(S) Nitrobenzene-d5	*62.7*		*14.0-149*		*07/01/2021 22:01*	WG1697992
(S) 2-Fluorobiphenyl	*62.0*		*34.0-125*		*07/01/2021 22:01*	WG1697992

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.17		1	07/03/2021 17:44	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 08:29	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.87	T8	1	06/28/2021 11:29	WG1696297

Sample Narrative:
L1371155-03 WG1696297: 7.87 at 25C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1490		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	367		0.500	1	07/02/2021 16:57	WG1695994
Cadmium	ND		0.500	1	07/02/2021 16:57	WG1695994
Copper	16.2		2.00	1	07/02/2021 16:57	WG1695994
Lead	10.3		0.500	1	07/02/2021 16:57	WG1695994
Nickel	14.9		2.00	1	07/02/2021 16:57	WG1695994
Selenium	3.08		2.00	1	07/02/2021 16:57	WG1695994
Silver	ND		1.00	1	07/02/2021 16:57	WG1695994
Zinc	67.6		5.00	1	07/02/2021 16:57	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.923		0.200	1	07/06/2021 13:07	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.24		1.00	5	06/30/2021 18:50	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 04:31	WG1699642
(S) a,a,a-Trifluorotoluene(FID)	*86.6*		*77.0-120*		*07/04/2021 04:31*	WG1699642

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 14:40	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 14:40	WG1697004
Toluene	ND		0.00500	1	06/29/2021 14:40	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:40	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:40	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 14:40	WG1697004
(S) Toluene-d8	*102*		*75.0-131*		*06/29/2021 14:40*	WG1697004
(S) 4-Bromofluorobenzene	*101*		*67.0-138*		*06/29/2021 14:40*	WG1697004
(S) 1,2-Dichloroethane-d4	*99.7*		*70.0-130*		*06/29/2021 14:40*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/08/2021 11:22	WG1701405
C28-C36 Motor Oil Range	ND		4.00	1	07/08/2021 11:22	WG1701405
(S) o-Terphenyl	*52.0*		*18.0-148*		*07/08/2021 11:22*	WG1701405

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Acenaphthene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Acenaphthylene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Benzo(a)anthracene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Benzo(a)pyrene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Benzo(b)fluoranthene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Benzo(g,h,i)perylene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Benzo(k)fluoranthene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Chrysene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Dibenz(a,h)anthracene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Fluoranthene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Fluorene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Naphthalene	ND		0.0200	1	07/01/2021 22:19	WG1697992
Phenanthrene	ND		0.00600	1	07/01/2021 22:19	WG1697992
Pyrene	ND		0.00600	1	07/01/2021 22:19	WG1697992
1-Methylnaphthalene	ND		0.0200	1	07/01/2021 22:19	WG1697992
2-Methylnaphthalene	ND		0.0200	1	07/01/2021 22:19	WG1697992
2-Chloronaphthalene	ND		0.0200	1	07/01/2021 22:19	WG1697992
(S) p-Terphenyl-d14	*76.0*		*23.0-120*		*07/01/2021 22:19*	WG1697992
(S) Nitrobenzene-d5	*65.9*		*14.0-149*		*07/01/2021 22:19*	WG1697992
(S) 2-Fluorobiphenyl	*64.4*		*34.0-125*		*07/01/2021 22:19*	WG1697992

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.40		1	07/03/2021 17:47	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 08:34	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.86	T8	1	06/28/2021 11:29	WG1696297

Sample Narrative:

L1371155-04 WG1696297: 7.86 at 24.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1580		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	367		0.500	1	07/02/2021 17:00	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:00	WG1695994
Copper	16.0		2.00	1	07/02/2021 17:00	WG1695994
Lead	12.2		0.500	1	07/02/2021 17:00	WG1695994
Nickel	16.0		2.00	1	07/02/2021 17:00	WG1695994
Selenium	3.15		2.00	1	07/02/2021 17:00	WG1695994
Silver	ND		1.00	1	07/02/2021 17:00	WG1695994
Zinc	59.6		5.00	1	07/02/2021 17:00	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.20		0.200	1	07/06/2021 13:10	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.64		1.00	5	06/30/2021 18:53	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 04:53	WG1699642
(S) a,a,a-Trifluorotoluene(FID)	*88.0*		*77.0-120*		*07/04/2021 04:53*	WG1699642

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 14:59	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 14:59	WG1697004
Toluene	ND		0.00500	1	06/29/2021 14:59	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:59	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 14:59	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 14:59	WG1697004
(S) Toluene-d8	*101*		*75.0-131*		*06/29/2021 14:59*	WG1697004
(S) 4-Bromofluorobenzene	*101*		*67.0-138*		*06/29/2021 14:59*	WG1697004
(S) 1,2-Dichloroethane-d4	*99.7*		*70.0-130*		*06/29/2021 14:59*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 12:26	WG1698688
C28-C36 Motor Oil Range	ND		4.00	1	07/03/2021 12:26	WG1698688
(S) o-Terphenyl	*25.6*		*18.0-148*		*07/03/2021 12:26*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 18:07	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 18:07	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 18:07	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 18:07	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 18:07	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 18:07	WG1698697
(S) p-Terphenyl-d14	*63.1*		*23.0-120*		*07/02/2021 18:07*	WG1698697
(S) Nitrobenzene-d5	*39.6*		*14.0-149*		*07/02/2021 18:07*	WG1698697
(S) 2-Fluorobiphenyl	*55.1*		*34.0-125*		*07/02/2021 18:07*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.43		1	07/03/2021 17:50	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 08:40	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.16	T8	1	06/28/2021 11:29	WG1696297

Sample Narrative:
L1371155-05 WG1696297: 8.16 at 24.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	550		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	368		0.500	1	07/02/2021 17:03	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:03	WG1695994
Copper	13.6		2.00	1	07/02/2021 17:03	WG1695994
Lead	9.49		0.500	1	07/02/2021 17:03	WG1695994
Nickel	12.2		2.00	1	07/02/2021 17:03	WG1695994
Selenium	3.19		2.00	1	07/02/2021 17:03	WG1695994
Silver	ND		1.00	1	07/02/2021 17:03	WG1695994
Zinc	49.1		5.00	1	07/02/2021 17:03	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.968		0.200	1	07/06/2021 13:12	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.95		1.00	5	06/30/2021 18:57	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 14:11	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*100*		*77.0-120*		*07/04/2021 14:11*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 15:18	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 15:18	WG1697004
Toluene	ND		0.00500	1	06/29/2021 15:18	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 15:18	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 15:18	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 15:18	WG1697004
(S) Toluene-d8	*103*		*75.0-131*		*06/29/2021 15:18*	WG1697004
(S) 4-Bromofluorobenzene	*99.0*		*67.0-138*		*06/29/2021 15:18*	WG1697004
(S) 1,2-Dichloroethane-d4	*97.7*		*70.0-130*		*06/29/2021 15:18*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 12:39	WG1698688
C28-C36 Motor Oil Range	ND		4.00	1	07/03/2021 12:39	WG1698688
(S) o-Terphenyl	*40.8*		*18.0-148*		*07/03/2021 12:39*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 18:27	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 18:27	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 18:27	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 18:27	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 18:27	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 18:27	WG1698697
(S) p-Terphenyl-d14	*96.8*		*23.0-120*		*07/02/2021 18:27*	WG1698697
(S) Nitrobenzene-d5	*60.5*		*14.0-149*		*07/02/2021 18:27*	WG1698697
(S) 2-Fluorobiphenyl	*82.7*		*34.0-125*		*07/02/2021 18:27*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.29		1	07/03/2021 17:52	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 08:55	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.85	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:
L1371155-06 WG1696489: 7.85 at 27.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1330		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	491		0.500	1	07/02/2021 17:06	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:06	WG1695994
Copper	16.1		2.00	1	07/02/2021 17:06	WG1695994
Lead	11.7		0.500	1	07/02/2021 17:06	WG1695994
Nickel	15.1		2.00	1	07/02/2021 17:06	WG1695994
Selenium	2.69		2.00	1	07/02/2021 17:06	WG1695994
Silver	ND		1.00	1	07/02/2021 17:06	WG1695994
Zinc	58.0		5.00	1	07/02/2021 17:06	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.11		0.200	1	07/06/2021 13:15	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.44		1.00	5	06/30/2021 19:00	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 14:54	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*99.9*		*77.0-120*		*07/04/2021 14:54*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 15:37	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 15:37	WG1697004
Toluene	ND		0.00500	1	06/29/2021 15:37	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 15:37	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 15:37	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 15:37	WG1697004
(S) Toluene-d8	*98.6*		*75.0-131*		*06/29/2021 15:37*	WG1697004
(S) 4-Bromofluorobenzene	*98.9*		*67.0-138*		*06/29/2021 15:37*	WG1697004
(S) 1,2-Dichloroethane-d4	*98.8*		*70.0-130*		*06/29/2021 15:37*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 12:52	WG1698688
C28-C36 Motor Oil Range	ND		4.00	1	07/03/2021 12:52	WG1698688
(S) o-Terphenyl	*23.6*		*18.0-148*		*07/03/2021 12:52*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 18:47	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 18:47	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 18:47	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 18:47	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 18:47	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 18:47	WG1698697
(S) p-Terphenyl-d14	*81.9*		*23.0-120*		*07/02/2021 18:47*	WG1698697
(S) Nitrobenzene-d5	*53.3*		*14.0-149*		*07/02/2021 18:47*	WG1698697
(S) 2-Fluorobiphenyl	*72.4*		*34.0-125*		*07/02/2021 18:47*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.11		1	07/03/2021 17:55	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 09:00	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.11	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:
L1371155-07 WG1696489: 8.11 at 27C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	612		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	250		0.500	1	07/02/2021 17:10	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:10	WG1695994
Copper	15.4		2.00	1	07/02/2021 17:10	WG1695994
Lead	10.7		0.500	1	07/02/2021 17:10	WG1695994
Nickel	14.1		2.00	1	07/02/2021 17:10	WG1695994
Selenium	2.35		2.00	1	07/02/2021 17:10	WG1695994
Silver	ND		1.00	1	07/02/2021 17:10	WG1695994
Zinc	54.8		5.00	1	07/02/2021 17:10	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.714		0.200	1	07/06/2021 13:18	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.27		1.00	5	06/30/2021 19:04	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 15:18	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*07/04/2021 15:18*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 15:56	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 15:56	WG1697004
Toluene	ND		0.00500	1	06/29/2021 15:56	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 15:56	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 15:56	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 15:56	WG1697004
(S) Toluene-d8	*101*		*75.0-131*		*06/29/2021 15:56*	WG1697004
(S) 4-Bromofluorobenzene	*99.6*		*67.0-138*		*06/29/2021 15:56*	WG1697004
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*06/29/2021 15:56*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 13:05	WG1698688
C28-C36 Motor Oil Range	4.61		4.00	1	07/03/2021 13:05	WG1698688
(S) o-Terphenyl	*31.6*		*18.0-148*		*07/03/2021 13:05*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 19:06	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 19:06	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 19:06	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 19:06	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 19:06	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 19:06	WG1698697
(S) p-Terphenyl-d14	*96.6*		*23.0-120*		*07/02/2021 19:06*	WG1698697
(S) Nitrobenzene-d5	*63.8*		*14.0-149*		*07/02/2021 19:06*	WG1698697
(S) 2-Fluorobiphenyl	*84.5*		*34.0-125*		*07/02/2021 19:06*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.12		1	07/03/2021 17:58	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 09:05	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.97	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:

L1371155-08 WG1696489: 7.97 at 26.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	487		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	198		0.500	1	07/02/2021 17:13	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:13	WG1695994
Copper	13.0		2.00	1	07/02/2021 17:13	WG1695994
Lead	10.2		0.500	1	07/02/2021 17:13	WG1695994
Nickel	12.0		2.00	1	07/02/2021 17:13	WG1695994
Selenium	2.54		2.00	1	07/02/2021 17:13	WG1695994
Silver	ND		1.00	1	07/02/2021 17:13	WG1695994
Zinc	48.5		5.00	1	07/02/2021 17:13	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.494		0.200	1	07/06/2021 13:26	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.26		1.00	5	06/30/2021 19:07	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 15:41	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*07/04/2021 15:41*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 16:15	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 16:15	WG1697004
Toluene	ND		0.00500	1	06/29/2021 16:15	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 16:15	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 16:15	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 16:15	WG1697004
(S) Toluene-d8	*102*		*75.0-131*		*06/29/2021 16:15*	WG1697004
(S) 4-Bromofluorobenzene	*99.5*		*67.0-138*		*06/29/2021 16:15*	WG1697004
(S) 1,2-Dichloroethane-d4	*98.7*		*70.0-130*		*06/29/2021 16:15*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.98		4.00	1	07/03/2021 13:18	WG1698688
C28-C36 Motor Oil Range	8.02		4.00	1	07/03/2021 13:18	WG1698688
(S) o-Terphenyl	*21.8*		*18.0-148*		*07/03/2021 13:18*	WG1698688

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 19:26	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 19:26	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 19:26	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 19:26	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 19:26	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 19:26	WG1698697
(S) p-Terphenyl-d14	*72.4*		*23.0-120*		*07/02/2021 19:26*	WG1698697
(S) Nitrobenzene-d5	*49.1*		*14.0-149*		*07/02/2021 19:26*	WG1698697
(S) 2-Fluorobiphenyl	*64.6*		*34.0-125*		*07/02/2021 19:26*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.226		1	07/03/2021 18:01	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 09:11	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.16	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:
L1371155-09 WG1696489: 8.16 at 26.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	197		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	216		0.500	1	07/02/2021 17:16	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:16	WG1695994
Copper	11.5		2.00	1	07/02/2021 17:16	WG1695994
Lead	11.1		0.500	1	07/02/2021 17:16	WG1695994
Nickel	10.4		2.00	1	07/02/2021 17:16	WG1695994
Selenium	2.26		2.00	1	07/02/2021 17:16	WG1695994
Silver	ND		1.00	1	07/02/2021 17:16	WG1695994
Zinc	42.0		5.00	1	07/02/2021 17:16	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.335		0.200	1	07/06/2021 13:29	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.45		1.00	5	06/30/2021 19:11	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 16:05	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*07/04/2021 16:05*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 16:34	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 16:34	WG1697004
Toluene	ND		0.00500	1	06/29/2021 16:34	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 16:34	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 16:34	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 16:34	WG1697004
(S) Toluene-d8	*98.3*		*75.0-131*		*06/29/2021 16:34*	WG1697004
(S) 4-Bromofluorobenzene	*98.0*		*67.0-138*		*06/29/2021 16:34*	WG1697004
(S) 1,2-Dichloroethane-d4	*97.9*		*70.0-130*		*06/29/2021 16:34*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 01:25	WG1698689
C28-C36 Motor Oil Range	5.11		4.00	1	07/03/2021 01:25	WG1698689
(S) o-Terphenyl	*49.2*		*18.0-148*		*07/03/2021 01:25*	WG1698689

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 19:46	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 19:46	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 19:46	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 19:46	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 19:46	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 19:46	WG1698697
(S) p-Terphenyl-d14	*71.7*		*23.0-120*		*07/02/2021 19:46*	WG1698697
(S) Nitrobenzene-d5	*50.5*		*14.0-149*		*07/02/2021 19:46*	WG1698697
(S) 2-Fluorobiphenyl	*65.0*		*34.0-125*		*07/02/2021 19:46*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.147		1	07/03/2021 18:09	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 09:16	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.08	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:
L1371155-10 WG1696489: 8.08 at 26.7C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	259		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	197		0.500	1	07/02/2021 17:19	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:19	WG1695994
Copper	12.4		2.00	1	07/02/2021 17:19	WG1695994
Lead	10.7		0.500	1	07/02/2021 17:19	WG1695994
Nickel	11.5		2.00	1	07/02/2021 17:19	WG1695994
Selenium	2.66		2.00	1	07/02/2021 17:19	WG1695994
Silver	ND		1.00	1	07/02/2021 17:19	WG1695994
Zinc	47.1		5.00	1	07/02/2021 17:19	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.343		0.200	1	07/06/2021 13:32	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.13		1.00	5	06/30/2021 19:14	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 16:29	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*07/04/2021 16:29*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 16:53	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 16:53	WG1697004
Toluene	ND		0.00500	1	06/29/2021 16:53	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 16:53	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 16:53	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 16:53	WG1697004
(S) Toluene-d8	*101*		*75.0-131*		*06/29/2021 16:53*	WG1697004
(S) 4-Bromofluorobenzene	*100*		*67.0-138*		*06/29/2021 16:53*	WG1697004
(S) 1,2-Dichloroethane-d4	*99.4*		*70.0-130*		*06/29/2021 16:53*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 01:38	WG1698689
C28-C36 Motor Oil Range	6.95		4.00	1	07/03/2021 01:38	WG1698689
(S) o-Terphenyl	*43.3*		*18.0-148*		*07/03/2021 01:38*	WG1698689

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 20:06	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 20:06	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 20:06	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 20:06	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 20:06	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 20:06	WG1698697
(S) p-Terphenyl-d14	*79.2*		*23.0-120*		*07/02/2021 20:06*	WG1698697
(S) Nitrobenzene-d5	*52.0*		*14.0-149*		*07/02/2021 20:06*	WG1698697
(S) 2-Fluorobiphenyl	*69.2*		*34.0-125*		*07/02/2021 20:06*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.253		1	07/03/2021 18:12	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 09:26	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.08	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:
L1371155-11 WG1696489: 8.08 at 27C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	242		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	220		0.500	1	07/02/2021 17:22	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:22	WG1695994
Copper	11.0		2.00	1	07/02/2021 17:22	WG1695994
Lead	10.5		0.500	1	07/02/2021 17:22	WG1695994
Nickel	9.10		2.00	1	07/02/2021 17:22	WG1695994
Selenium	ND		2.00	1	07/02/2021 17:22	WG1695994
Silver	ND		1.00	1	07/02/2021 17:22	WG1695994
Zinc	37.0		5.00	1	07/02/2021 17:22	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.483		0.200	1	07/06/2021 13:35	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.20		1.00	5	06/30/2021 19:17	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 16:52	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*100*		*77.0-120*		*07/04/2021 16:52*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 17:12	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 17:12	WG1697004
Toluene	ND		0.00500	1	06/29/2021 17:12	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 17:12	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 17:12	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 17:12	WG1697004
(S) Toluene-d8	*102*		*75.0-131*		*06/29/2021 17:12*	WG1697004
(S) 4-Bromofluorobenzene	*103*		*67.0-138*		*06/29/2021 17:12*	WG1697004
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/29/2021 17:12*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 01:51	WG1698689
C28-C36 Motor Oil Range	7.17		4.00	1	07/03/2021 01:51	WG1698689
(S) o-Terphenyl	*58.4*		*18.0-148*		*07/03/2021 01:51*	WG1698689

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 20:26	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 20:26	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 20:26	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 20:26	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 20:26	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 20:26	WG1698697
(S) p-Terphenyl-d14	*94.6*		*23.0-120*		*07/02/2021 20:26*	WG1698697
(S) Nitrobenzene-d5	*63.3*		*14.0-149*		*07/02/2021 20:26*	WG1698697
(S) 2-Fluorobiphenyl	*84.3*		*34.0-125*		*07/02/2021 20:26*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.186		1	07/03/2021 18:15	WG1697183

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	07/07/2021 09:31	WG1698241

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.10	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:
L1371155-12 WG1696489: 8.1 at 26.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	216		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	190		0.500	1	07/02/2021 17:25	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:25	WG1695994
Copper	11.7		2.00	1	07/02/2021 17:25	WG1695994
Lead	10.4		0.500	1	07/02/2021 17:25	WG1695994
Nickel	10.6		2.00	1	07/02/2021 17:25	WG1695994
Selenium	ND		2.00	1	07/02/2021 17:25	WG1695994
Silver	ND		1.00	1	07/02/2021 17:25	WG1695994
Zinc	43.9		5.00	1	07/02/2021 17:25	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.416		0.200	1	07/06/2021 13:38	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.35		1.00	5	06/30/2021 19:21	WG1695995

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	07/04/2021 17:16	WG1699775
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*07/04/2021 17:16*	WG1699775

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/29/2021 17:31	WG1697004
Ethylbenzene	ND		0.00250	1	06/29/2021 17:31	WG1697004
Toluene	ND		0.00500	1	06/29/2021 17:31	WG1697004
1,2,4-Trimethylbenzene	ND		0.00500	1	06/29/2021 17:31	WG1697004
1,3,5-Trimethylbenzene	ND		0.00500	1	06/29/2021 17:31	WG1697004
Xylenes, Total	ND		0.00650	1	06/29/2021 17:31	WG1697004
(S) Toluene-d8	*97.7*		*75.0-131*		*06/29/2021 17:31*	WG1697004
(S) 4-Bromofluorobenzene	*98.5*		*67.0-138*		*06/29/2021 17:31*	WG1697004
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/29/2021 17:31*	WG1697004

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	07/03/2021 14:48	WG1698690
C28-C36 Motor Oil Range	ND		4.00	1	07/03/2021 14:48	WG1698690
(S) o-Terphenyl	*21.8*		*18.0-148*		*07/03/2021 14:48*	WG1698690

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Acenaphthene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Acenaphthylene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Benzo(a)anthracene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Benzo(a)pyrene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Benzo(b)fluoranthene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Benzo(g,h,i)perylene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Benzo(k)fluoranthene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Chrysene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Dibenz(a,h)anthracene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Fluoranthene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Fluorene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Naphthalene	ND		0.0200	1	07/02/2021 20:46	WG1698697
Phenanthrene	ND		0.00600	1	07/02/2021 20:46	WG1698697
Pyrene	ND		0.00600	1	07/02/2021 20:46	WG1698697
1-Methylnaphthalene	ND		0.0200	1	07/02/2021 20:46	WG1698697
2-Methylnaphthalene	ND		0.0200	1	07/02/2021 20:46	WG1698697
2-Chloronaphthalene	ND		0.0200	1	07/02/2021 20:46	WG1698697
(S) p-Terphenyl-d14	*95.6*		*23.0-120*		*07/02/2021 20:46*	WG1698697
(S) Nitrobenzene-d5	*60.7*		*14.0-149*		*07/02/2021 20:46*	WG1698697
(S) 2-Fluorobiphenyl	*82.4*		*34.0-125*		*07/02/2021 20:46*	WG1698697

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0784		1	07/03/2021 18:18	WG1697183

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.72	T8	1	06/28/2021 16:00	WG1696489

Sample Narrative:

L1371155-13 WG1696489: 7.72 at 26.7C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	358		10.0	1	07/01/2021 19:27	WG1697435

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	183		0.500	1	07/02/2021 17:34	WG1695994
Cadmium	ND		0.500	1	07/02/2021 17:34	WG1695994
Copper	11.1		2.00	1	07/02/2021 17:34	WG1695994
Lead	12.8		0.500	1	07/02/2021 17:34	WG1695994
Nickel	9.75		2.00	1	07/02/2021 17:34	WG1695994
Selenium	2.11		2.00	1	07/02/2021 17:34	WG1695994
Silver	ND		1.00	1	07/02/2021 17:34	WG1695994
Zinc	42.7		5.00	1	07/02/2021 17:34	WG1695994

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.470		0.200	1	07/06/2021 13:41	WG1697170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.04		1.00	5	06/30/2021 19:31	WG1695995

Method Blank (MB)

(MB) R3676745-1 07/07/21 06:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	U		0.255	1.00

L1368307-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1368307-01 07/07/21 07:01 • (DUP) R3676745-3 07/07/21 07:06

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	3.88		20

L1371155-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1371155-10 07/07/21 09:16 • (DUP) R3676745-8 07/07/21 09:21

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3676745-2 07/07/21 06:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.1	101	80.0-120	

L1371155-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1371155-02 07/07/21 08:03 • (MS) R3676745-4 07/07/21 08:08 • (MSD) R3676745-5 07/07/21 08:14

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	ND	16.2	18.6	81.2	93.1	1	75.0-125			13.6	20

L1371155-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1371155-02 07/07/21 08:03 • (MS) R3676745-6 07/07/21 08:19

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	656	ND	651	99.3	50	75.0-125	

L1371049-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1371049-02 06/28/21 11:29 • (DUP) R3672831-2 06/28/21 11:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	9.37	9.36	1	0.107		1

Sample Narrative:

OS: 9.37 at 25.1C

DUP: 9.36 at 25.5C

L1371155-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1371155-04 06/28/21 11:29 • (DUP) R3672831-3 06/28/21 11:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.86	7.90	1	0.508		1

Sample Narrative:

OS: 7.86 at 24.8C

DUP: 7.9 at 24.6C

Laboratory Control Sample (LCS)

(LCS) R3672831-1 06/28/21 11:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.04 at 25.1C

L1371201-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1371201-04 06/28/21 16:00 • (DUP) R3673069-2 06/28/21 16:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.02	8.03	1	0.125		1

Sample Narrative:

OS: 8.02 at 26.1C

DUP: 8.03 at 26.3C

L1371201-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1371201-05 06/28/21 16:00 • (DUP) R3673069-3 06/28/21 16:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.04	8.03	1	0.124		1

Sample Narrative:

OS: 8.04 at 26.2C

DUP: 8.03 at 26.3C

Laboratory Control Sample (LCS)

(LCS) R3673069-1 06/28/21 16:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.03 at 26C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3674728-1 07/01/21 19:27

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

L1371155-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1371155-05 07/01/21 19:27 • (DUP) R3674728-3 07/01/21 19:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	550	625	1	12.8		20

L1371553-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1371553-05 07/01/21 19:27 • (DUP) R3674728-4 07/01/21 19:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	594	557	1	6.43		20

Laboratory Control Sample (LCS)

(LCS) R3674728-2 07/01/21 19:27

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	899	907	101	85.0-115	

Method Blank (MB)

(MB) R3675250-1 07/02/21 16:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3675250-2 07/02/21 16:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	101	101	80.0-120	
Cadmium	100	95.9	95.9	80.0-120	
Copper	100	98.6	98.6	80.0-120	
Lead	100	98.6	98.6	80.0-120	
Nickel	100	101	101	80.0-120	
Selenium	100	98.9	98.9	80.0-120	
Silver	20.0	19.3	96.5	80.0-120	
Zinc	100	98.7	98.7	80.0-120	

L1371201-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1371201-03 07/02/21 16:28 • (MS) R3675250-5 07/02/21 16:37 • (MSD) R3675250-6 07/02/21 16:40

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	100	258	364	339	106	81.0	1	75.0-125			7.16	20
Cadmium	100	ND	96.3	95.7	96.0	95.4	1	75.0-125			0.623	20
Copper	100	11.5	112	111	101	99.8	1	75.0-125			0.908	20
Lead	100	7.53	106	105	98.3	97.9	1	75.0-125			0.342	20
Nickel	100	12.2	113	111	101	99.2	1	75.0-125			1.35	20
Selenium	100	ND	101	99.0	100	98.1	1	75.0-125			1.86	20
Silver	20.0	ND	19.4	19.0	97.1	95.1	1	75.0-125			2.05	20
Zinc	100	29.7	127	126	97.5	95.9	1	75.0-125			1.25	20

Method Blank (MB)

(MB) R3676127-1 07/06/21 12:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0167	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3676127-2 07/06/21 12:56 • (LCSD) R3676127-3 07/06/21 12:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	0.999	1.00	99.9	100	80.0-120			0.590	20

QUALITY CONTROL SUMMARY

L1371155-01,02,03,04,05,06,07,08,09,10,11,12,13

Method Blank (MB)

(MB) R3674200-1 06/30/21 18:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00

Laboratory Control Sample (LCS)

(LCS) R3674200-2 06/30/21 18:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	90.0	90.0	80.0-120	

L1371201-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1371201-03 06/30/21 18:15 • (MS) R3674200-5 06/30/21 18:26 • (MSD) R3674200-6 06/30/21 18:29

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	5.82	92.8	93.6	87.0	87.8	5	75.0-125			0.890	20

Method Blank (MB)

(MB) R3676215-2 07/03/21 20:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3676215-1 07/03/21 19:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.88	107	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*111*	*77.0-120*	

L1370510-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370510-03 07/03/21 21:23 • (MS) R3676215-3 07/04/21 05:15 • (MSD) R3676215-4 07/04/21 05:37

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	138	3.85	117	129	82.0	90.7	25	10.0-151			9.76	28
(S) a,a,a-Trifluorotoluene(FID)					*107*	*106*		*77.0-120*				

Method Blank (MB)

(MB) R3676266-3 07/04/21 13:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0383	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3676266-1 07/04/21 12:12 • (LCSD) R3676266-2 07/04/21 12:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.59	5.34	102	97.1	72.0-127			4.57	20
(S) a,a,a-Trifluorotoluene(FID)				*111*	*110*	*77.0-120*				

L1370931-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370931-01 07/04/21 21:37 • (MS) R3676266-4 07/04/21 23:13 • (MSD) R3676266-5 07/04/21 23:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	11000	1220	15700	15700	132	132	2000	10.0-151			0.000	28
(S) a,a,a-Trifluorotoluene(FID)					*102*	*101*		*77.0-120*				

Method Blank (MB)

(MB) R3673441-2 06/29/21 10:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*101*			*75.0-131*
(S) 4-Bromofluorobenzene	*100*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.0*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3673441-1 06/29/21 09:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.143	114	70.0-123	
Ethylbenzene	0.125	0.134	107	74.0-126	
Toluene	0.125	0.133	106	75.0-121	
1,2,4-Trimethylbenzene	0.125	0.126	101	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.130	104	73.0-127	
Xylenes, Total	0.375	0.405	108	72.0-127	
(S) Toluene-d8			*97.3*	*75.0-131*	
(S) 4-Bromofluorobenzene			*102*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*110*	*70.0-130*	

L1369338-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1369338-01 06/29/21 11:30 • (MS) R3673441-3 06/29/21 19:25 • (MSD) R3673441-4 06/29/21 19:44

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	10.0	0.852	6.99	13.0	61.4	121	80	10.0-149		J3	60.1	37
Ethylbenzene	10.0	0.830	6.14	12.3	53.1	115	80	10.0-160		J3	66.8	38
Toluene	10.0	2.38	8.89	14.0	65.1	116	80	10.0-156		J3	44.6	38
1,2,4-Trimethylbenzene	10.0	0.498	6.35	11.2	58.5	107	80	10.0-160		J3	55.3	36
1,3,5-Trimethylbenzene	10.0	ND	5.79	11.0	55.2	107	80	10.0-160		J3	62.1	38
Xylenes, Total	30.0	6.01	23.5	40.3	58.3	114	80	10.0-160		J3	52.7	38
(S) Toluene-d8					*96.1*	*95.7*		*75.0-131*				
(S) 4-Bromofluorobenzene					*102*	*101*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*106*	*107*		*70.0-130*				

Method Blank (MB)

(MB) R3675417-1 07/03/21 07:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*62.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3675417-2 07/03/21 08:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	33.9	67.8	50.0-150	
(S) o-Terphenyl			*65.8*	*18.0-148*	

L1371155-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1371155-01 07/03/21 11:21 • (MS) R3675417-3 07/03/21 11:34 • (MSD) R3675417-4 07/03/21 11:47

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	47.4	ND	12.4	8.90	26.2	18.7	1	50.0-150	J6	J3 J6	32.9	20
(S) o-Terphenyl					*27.2*	*14.5*		*18.0-148*		J2		

Method Blank (MB)

(MB) R3674775-1 07/01/21 21:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*49.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3674775-2 07/01/21 21:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	47.1	94.2	50.0-150	
(S) o-Terphenyl			*91.6*	*18.0-148*	

L1370916-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370916-01 07/02/21 00:52 • (MS) R3674775-3 07/02/21 01:05 • (MSD) R3674775-4 07/02/21 01:18

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.5	27.8	47.3	40.6	39.4	26.8	1	50.0-150	J6	J6	15.2	20
(S) o-Terphenyl					*64.1*	*62.4*		*18.0-148*				

Method Blank (MB)

(MB) R3675441-1 07/03/21 13:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*48.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3675441-2 07/03/21 14:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	28.0	56.0	50.0-150	
(S) o-Terphenyl			*59.3*	*18.0-148*	

Method Blank (MB)

(MB) R3677035-1 07/08/21 10:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*64.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3677035-2 07/08/21 10:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.4	72.8	50.0-150	
(S) o-Terphenyl			*74.8*	*18.0-148*	

L1372740-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1372740-18 07/08/21 11:50 • (MS) R3677035-3 07/08/21 12:03 • (MSD) R3677035-4 07/08/21 12:17

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.6	6.14	43.5	46.8	76.9	83.3	1	50.0-150			7.31	20
(S) o-Terphenyl					*52.9*	*67.1*		*18.0-148*				

Method Blank (MB)

(MB) R3674712-2 07/01/21 16:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	*78.9*			*14.0-149*
(S) 2-Fluorobiphenyl	*78.2*			*34.0-125*
(S) p-Terphenyl-d14	*94.0*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3674712-1 07/01/21 16:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0794	99.3	50.0-126	
Acenaphthene	0.0800	0.0745	93.1	50.0-120	
Acenaphthylene	0.0800	0.0796	99.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0783	97.9	45.0-120	
Benzo(a)pyrene	0.0800	0.0616	77.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0764	95.5	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0734	91.8	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0753	94.1	49.0-125	
Chrysene	0.0800	0.0787	98.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0742	92.8	47.0-125	
Fluoranthene	0.0800	0.0795	99.4	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3674712-1 07/01/21 16:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0764	95.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0746	93.3	46.0-125	
Naphthalene	0.0800	0.0703	87.9	50.0-120	
Phenanthrene	0.0800	0.0763	95.4	47.0-120	
Pyrene	0.0800	0.0788	98.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0737	92.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0707	88.4	50.0-120	
2-Chloronaphthalene	0.0800	0.0721	90.1	50.0-120	
(S) Nitrobenzene-d5			*88.1*	*14.0-149*	
(S) 2-Fluorobiphenyl			*83.6*	*34.0-125*	
(S) p-Terphenyl-d14			*99.2*	*23.0-120*	

L1371227-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1371227-17 07/01/21 17:15 • (MS) R3674712-3 07/01/21 17:33 • (MSD) R3674712-4 07/01/21 17:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0768	ND	0.0660	0.0649	85.9	85.4	1	10.0-145			1.68	30
Acenaphthene	0.0768	ND	0.0630	0.0612	82.0	80.5	1	14.0-127			2.90	27
Acenaphthylene	0.0768	ND	0.0668	0.0638	87.0	83.9	1	21.0-124			4.59	25
Benzo(a)anthracene	0.0768	ND	0.0647	0.0624	84.2	82.1	1	10.0-139			3.62	30
Benzo(a)pyrene	0.0768	ND	0.0624	0.0602	81.2	79.2	1	10.0-141			3.59	31
Benzo(b)fluoranthene	0.0768	ND	0.0654	0.0634	85.2	83.4	1	10.0-140			3.11	36
Benzo(g,h,i)perylene	0.0768	ND	0.0644	0.0628	83.9	82.6	1	10.0-140			2.52	33
Benzo(k)fluoranthene	0.0768	ND	0.0656	0.0636	85.4	83.7	1	10.0-137			3.10	31
Chrysene	0.0768	ND	0.0665	0.0646	86.6	85.0	1	10.0-145			2.90	30
Dibenz(a,h)anthracene	0.0768	ND	0.0636	0.0622	82.8	81.8	1	10.0-132			2.23	31
Fluoranthene	0.0768	ND	0.0665	0.0646	86.6	85.0	1	10.0-153			2.90	33
Fluorene	0.0768	ND	0.0652	0.0633	84.9	83.3	1	11.0-130			2.96	29
Indeno(1,2,3-cd)pyrene	0.0768	ND	0.0642	0.0617	83.6	81.2	1	10.0-137			3.97	32
Naphthalene	0.0768	ND	0.0603	0.0595	78.5	78.3	1	10.0-135			1.34	27
Phenanthrene	0.0768	ND	0.0658	0.0655	85.7	86.2	1	10.0-144			0.457	31
Pyrene	0.0768	ND	0.0674	0.0650	87.8	85.5	1	10.0-148			3.63	35
1-Methylnaphthalene	0.0768	ND	0.0620	0.0606	80.7	79.7	1	10.0-142			2.28	28
2-Methylnaphthalene	0.0768	ND	0.0603	0.0581	78.5	76.4	1	10.0-137			3.72	28
2-Chloronaphthalene	0.0768	ND	0.0615	0.0599	80.1	78.8	1	29.0-120			2.64	24
(S) Nitrobenzene-d5					*76.5*	*73.1*		*14.0-149*				
(S) 2-Fluorobiphenyl					*74.0*	*71.6*		*34.0-125*				
(S) p-Terphenyl-d14					*87.1*	*82.8*		*23.0-120*				

Method Blank (MB)

(MB) R3675208-2 07/02/21 17:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	*68.1*			*14.0-149*
(S) 2-Fluorobiphenyl	*90.0*			*34.0-125*
(S) p-Terphenyl-d14	*105*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3675208-1 07/02/21 17:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0649	81.1	50.0-126	
Acenaphthene	0.0800	0.0686	85.8	50.0-120	
Acenaphthylene	0.0800	0.0657	82.1	50.0-120	
Benzo(a)anthracene	0.0800	0.0648	81.0	45.0-120	
Benzo(a)pyrene	0.0800	0.0674	84.3	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0788	98.5	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0790	98.8	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0774	96.8	49.0-125	
Chrysene	0.0800	0.0753	94.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0751	93.9	47.0-125	
Fluoranthene	0.0800	0.0708	88.5	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3675208-1 07/02/21 17:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0708	88.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0721	90.1	46.0-125	
Naphthalene	0.0800	0.0667	83.4	50.0-120	
Phenanthrene	0.0800	0.0703	87.9	47.0-120	
Pyrene	0.0800	0.0740	92.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0713	89.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0687	85.9	50.0-120	
2-Chloronaphthalene	0.0800	0.0741	92.6	50.0-120	
(S) Nitrobenzene-d5			*76.0*	*14.0-149*	
(S) 2-Fluorobiphenyl			*99.3*	*34.0-125*	
(S) p-Terphenyl-d14			*112*	*23.0-120*	

L1371201-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1371201-02 07/02/21 22:45 • (MS) R3675208-3 07/02/21 23:04 • (MSD) R3675208-4 07/02/21 23:24

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0509	0.0636	63.6	79.5	1	10.0-145			22.2	30
Acenaphthene	0.0800	ND	0.0513	0.0624	64.1	78.0	1	14.0-127			19.5	27
Acenaphthylene	0.0800	ND	0.0512	0.0634	64.0	79.3	1	21.0-124			21.3	25
Benzo(a)anthracene	0.0800	ND	0.0544	0.0660	68.0	82.5	1	10.0-139			19.3	30
Benzo(a)pyrene	0.0800	ND	0.0534	0.0654	66.8	81.8	1	10.0-141			20.2	31
Benzo(b)fluoranthene	0.0800	ND	0.0540	0.0658	67.5	82.3	1	10.0-140			19.7	36
Benzo(g,h,i)perylene	0.0800	ND	0.0537	0.0653	67.1	81.6	1	10.0-140			19.5	33
Benzo(k)fluoranthene	0.0800	ND	0.0532	0.0658	66.5	82.3	1	10.0-137			21.2	31
Chrysene	0.0800	ND	0.0560	0.0686	70.0	85.8	1	10.0-145			20.2	30
Dibenz(a,h)anthracene	0.0800	ND	0.0504	0.0620	63.0	77.5	1	10.0-132			20.6	31
Fluoranthene	0.0800	ND	0.0565	0.0694	70.6	86.8	1	10.0-153			20.5	33
Fluorene	0.0800	ND	0.0554	0.0668	69.3	83.5	1	11.0-130			18.7	29
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0529	0.0643	66.1	80.4	1	10.0-137			19.5	32
Naphthalene	0.0800	ND	0.0515	0.0621	64.4	77.6	1	10.0-135			18.7	27
Phenanthrene	0.0800	ND	0.0537	0.0647	67.1	80.9	1	10.0-144			18.6	31
Pyrene	0.0800	ND	0.0542	0.0656	67.8	82.0	1	10.0-148			19.0	35
1-Methylnaphthalene	0.0800	ND	0.0558	0.0672	69.8	84.0	1	10.0-142			18.5	28
2-Methylnaphthalene	0.0800	ND	0.0560	0.0667	70.0	83.4	1	10.0-137			17.4	28
2-Chloronaphthalene	0.0800	ND	0.0548	0.0663	68.5	82.9	1	29.0-120			19.0	24
(S) Nitrobenzene-d5					*60.0*	*72.8*		*14.0-149*				
(S) 2-Fluorobiphenyl					*71.9*	*87.1*		*34.0-125*				
(S) p-Terphenyl-d14					*78.7*	*95.9*		*23.0-120*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Environmental Works Inc
4155 Darley Avenue
Suite B
Boulder, CO 80305

Report to:
Adam Kubat

Billing Information:
Adam Kubat
4155 Darley Avenue
Suite B
Boulder, CO 80305

Email To: akubat@environmentalworks.com

Pres Chk

Chain of Custody Page ___ of ___

Pace Analytical®

L1371155

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Project Description: Taproot Sampling
City/State Collected:
Please Circle: PT MT CT ET

Phone: 303-328-7982
Client Project # 211813
Lab Project #

Collected by (print): Adam Kubat
Site/Facility ID # 467382
P.O. #

Collected by (signature):
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
Date Results Needed

Immediately Packed on Ice N ___ Y ✓

SDG # D118
Table #
Acctnum: ENVWORBCO
Template: T190143
Prelogin: P856535
PM: 824 - Chris Ward
PB:
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Table915 GRO/DRO/ORO 4ozClr-NoPres	Table915 Metals 4ozClr-NoPres	Table915 PAHs 4ozClr-NoPres	Table915 VOCs 4ozClr-NoPres	Table915 pH SPCONSAR 4ozClr-NoPres	Remarks	Sample # (lab only)
SW8-3	G	SS	3'	6/24	1300	5	X	X	X	X	X		-01
SW7-3	G	SS	3'	6/24	1230	5	X	X	X	X	X		-02
SW6-3	G	SS	3'	6/24	1200	5	X	X	X	X	X		-03
SW5-3	G	SS	3'	6/24	1140	5	X	X	X	X	X		-04
SW4-3	G	SS	3'	6/24	1100	5	X	X	X	X	X		-05
SW3-3	G	SS	3'	6/24	1020	5	X	X	X	X	X		-06
SW2-3	G	SS	3'	6/24	945	5	X	X	X	X	X		-07
SS2	G	SS	6"	6/24	1315	5	X	X	X	X	X		-08
SS3	G	SS	6"	6/24	1325	5	X	X	X	X	X		-09
SS4	G	SS	6"	6/24	1335	5	X	X	X	X	X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: __ UPS __ FedEx ✓ Courier ________

Tracking # 9296 5246 0276 1380 7995 8870

Sample Receipt Checklist
COC Seal Present/Intact: _NP ✓Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓Y _N
RAD Screen <0.5 mR/hr: ✓Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCL / MeoH, TBR)	
Adam Kubat	6/24	1600			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8 - .1 = 1.7 °C (.2 .30)	Bottles Received: 62
				If preservation required by Login: Date/Time	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/25/21	Time: 1430
			K. Holder	Hold:	Condition: NCF / OK

Company Name/Address:
Environmental Works Inc
4155 Darley Avenue
Suite B
Boulder. CO 80305

Report to:
Adam Kubat

Billing Information:
Adam Kubat
4155 Darley Avenue
Suite B
Boulder, CO 80305

Email To: akubat@environmentalworks.com

Project Description: Confirmation Soil Sampling
City/State Collected: Briggsdale, CO
Please Circle: PT MT CT ET

Phone: 303-328-7982
Client Project # 211813
Lab Project #

Collected by (print): Adam Kubat
Site/Facility ID # 467382
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ✓
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Table915 GRO/DRO/ORO 4ozClr-NoPres	Table915 Metals 4ozClr-NoPres	Table915 PAHs 4ozClr-NoPres	Table915 VOCs 4ozClr-NoPres	Table915 pH SPCONSAR 4ozClr-NoPres	Remarks	Sample # (lab only)
SS5	G	SS	0.5'	6/24	1345	5	X	X	X	X	X		-11
SS6	G	SS	0.5'	6/24	1355	5	X	X	X	X	X		-12
BS1	G	SS	1.5'	6/24	1400	2	X	X	X	X	X		-13
	G	SS				5	X	X	X	X	X		
	G	SS				5	X	X	X	X	X		

Chain of Custody Page ___ of ___

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1371155
Table #
Acctnum: ENVWORBCO
Template: T190143
Prelogin: P856535
PM: 824 - Chris Ward
PB:
Shipped Via: FedEx Ground

Matrix:
S - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx ✓ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP ✓Y N
COC Signed/Accurate: ✓Y N
Bottles arrive intact: ✓Y N
Correct bottles used: ✓Y N
Sufficient volume sent: ✓Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: ✓Y N
RAD Screen <0.5 mR/hr: ✓Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Adam Kubat	6/24	1600		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: -1.8 °C 1.7 Bottles Received: 6
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) K. Hoover	Date: 6/25/21 Time: 1430

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

COGCC SOIL ASSAY FOR PRODUCED WATER SPILL

PRIMARY DB KEY: **FACILITY ID 467382**
LEASE #:
FIELD/AREA: **BRIGGSDALE, CO**

NAME/DESCRIP : **HALE PRODUCED WATER RELEASE SOIL SAMPLE 1 SOUTH EXIT SS1 - SURGACE SCRAPE SAMPLE #1**

PROJECT NO. : **202106056**
COMPANY NAME : **TAPROOT ROCKIES MIDSTREAM**
OFFICE / BRANCH: DENVER, CO
CUSTOMER REF:
PRODUCER :
FIELD DATA
SAMPLE CYCLE:
SAMPLE PRES. :
LAB PRES:
SAMPLE TEMP. :
AMBIENT TEMP.:
FIELD COMMENTS:
LAB COMMENTS:

ANALYSIS NO. : **01**
ANALYSIS DATE: JUNE 25, 2021 00:00
SAMPLE DATE : JUNE 10, 2021
TO:
EFFECTIVE DATE
SAMPLE TYPE:
CYLINDER NO. : 1Q PLASTIC BAG
SAMPLED BY : COLTON
SAMPLING COMPANY:

PARAMETER	METHOD	DILUTION	DETECTION LIMIT	REPORTED RESULTS/UNITS		DATE PREP	DATE TEST
Volatile Organic Compounds by EPA Method 8260B							
Gasoline **R**ange **O**rganics (C6-C10)	EPA 8260B	1	0.5	ND	mg/kg	06/10/21	06/10/21
Extractable Petroleum Hydrocarbons by 8015							
Diesel **R**ange **O**rganics (C10-C28)	EPA 8015M	1	50	ND	mg/kg	06/10/21	06/10/21
Oil **R**ange **O**rganics (C10-C28)	EPA 8015M	1	50	ND	mg/kg	06/10/21	06/10/21
Physical Parameters by APHA/ASTM/EPA Methods							
Percent Solids	Calculation	1	-	88.3	%	06/11/21	06/14/21
Total Metals by EPA 6020B Hot Water Soluble Extraction							
Boron	EPA 6020B	1	0.01	0.06	mg/L	06/15/21	06/17/21
Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction							
Calcium	EPA 6020B	1	0.0566	9.66	mg/L dry	06/14/21	06/16/21
Magnesium	EPA 6020B	1	0.0566	2.45	mg/L dry	06/14/21	06/16/21
Sodium	EPA 6020B	1	0.0566	19.5	mg/L dry	06/14/21	06/16/21
Calculated Analysis							
Sodium Adsorption Ratio	EPA 200.8 / CALC	1	-	1.45	-	06/17/21	06/27/21
Specific Conductance by EPA Method 120.1, Saturated Paste Extraction							
Specific Conductance	EPA 120.1	1	0.01	0.1220	mmhos/cm	06/15/21	06/15/21
Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction							
pH	EPA 9045D	1	-	8.21	-	06/15/21	06/15/21

BDL = Below Dection Limit
ND = Non Detect
N/A = Not Analyzed for this Parameter
mg/L = Milligram Per Liter or ppm (wt/vol); ug/L = Micrograms Per Liter or PPB (wt/vol)
SM = "Standard Methods for the Examination of Water and Wastewater", APHA, 19th Edition, 1995
EPA = "Methods of Chemical Analysis of Water and Wastes", USEPA, EPA-600/4-79-020 rev 3/83

EMPACT

COGCC SOIL ASSAY FOR PRODUCED WATER SPILL

PRIMARY DB KEY: **FACILITY ID 467382**
LEASE #:
FIELD/AREA: **BRIGGSDALE, CO**

NAME/DESCRIP : **HALE PRODUCED WATER RELEASE SOIL SAMPLE 2 NORTH EXIT SW1 - SIDEWALL SAMPLE #1**

PROJECT NO. : **202106056**
COMPANY NAME : **TAPROOT ROCKIES MIDSTREAM**
OFFICE / BRANCH: DENVER, CO
CUSTOMER REF:
PRODUCER :
FIELD DATA
SAMPLE CYCLE:
SAMPLE PRES. :
LAB PRES:
SAMPLE TEMP. :
AMBIENT TEMP.:
FIELD COMMENTS:
LAB COMMENTS:

ANALYSIS NO. : **02**
ANALYSIS DATE: JUNE 25, 2021 00:00
SAMPLE DATE : JUNE 10, 2021
TO:
EFFECTIVE DATE:
SAMPLE TYPE:
CYLINDER NO. : 1Q PLASTIC BAG
SAMPLED BY : COLTON
SAMPLING COMPANY:

PARAMETER	METHOD	DILUTION	DETECTION LIMIT	REPORTED RESULTS	UNITS	DATE PREP	DATE TEST
Volatile Organic Compounds by EPA Method 8260B							
Gasoline **R**ange **O**rganics (C6-C10)	EPA 8260B	1	0.5	ND	mg/kg	06/10/21	06/10/21
Extractable Petroleum Hydrocarbons by 8015							
Diesel **R**ange **O**rganics (C10-C28)	EPA 8015M	1	50	ND	mg/kg	06/10/21	06/10/21
Oil **R**ange **O**rganics (C10-C28)	EPA 8015M	1	50	ND	mg/kg	06/10/21	06/10/21
Physical Parameters by APHA/ASTM/EPA Methods							
Percent Solids	Calculation	1	-	90.3	%	06/11/21	06/14/21
Total Metals by EPA 6020B Hot Water Soluble Extraction							
Boron	EPA 6020B	1	0.01	0.0651	mg/L	06/15/21	06/17/21
Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction							
Calcium	EPA 6020B	1	0.0554	4.4	mg/L dry	06/14/21	06/16/21
Magnesium	EPA 6020B	1	0.0554	1.23	mg/L dry	06/14/21	06/16/21
Sodium	EPA 6020B	1	0.0554	5.43	mg/L dry	06/14/21	06/16/21
Calculated Analysis							
Sodium Adsorption Ratio	EPA 200.8 / CALC	1	-	0.5894	-	06/17/21	06/27/21
Specific Conductance by EPA Method 120.1, Saturated Paste Extraction							
Specific Conductance	EPA 120.1	1	0.01	0.0522	mmhos/cm	06/15/21	06/15/21
Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction							
pH	EPA 9045D	1	-	7.98	-	06/15/21	06/15/21

BDL = Below Dection Limit
ND = Non Detect
N/A = Not Analyzed for this Parameter
mg/L = Milligram Per Liter or ppm (wt/vol); ug/L = Micrograms Per Liter or PPB (wt/vol)
SM = "Standard Methods for the Examination of Water and Wastewater", APHA, 19th Edition, 1995
EPA = "Methods of Chemical Analysis of Water and Wastes", USEPA, EPA-600/4-79-020 rev 3/83

EMPACT

COGCC SOIL ASSAY FOR PRODUCED WATER SPILL

PRIMARY DB KEY: **FACILITY ID 467382**
LEASE #:
FIELD/AREA: **BRIGGSDALE, CO**

NAME/DESCRIP : **HALE PRODUCED WATER RELEASE SOIL SAMPLE 3 WEST EXIT FS1 - FLOOR SAMPLE #1**

PROJECT NO. : **202106056**
COMPANY NAME : **TAPROOT ROCKIES MIDSTREAM**
OFFICE / BRANCH: DENVER, CO
CUSTOMER REF:
PRODUCER :
FIELD DATA
SAMPLE CYCLE:
SAMPLE PRES. :
LAB PRES:
SAMPLE TEMP. :
AMBIENT TEMP.:
FIELD COMMENTS:
LAB COMMENTS:

ANALYSIS NO. : **03**
ANALYSIS DATE: JUNE 25, 2021 00:00
SAMPLE DATE : JUNE 10, 2021
TO:
EFFECTIVE DATE
SAMPLE TYPE:
CYLINDER NO. : 1Q PLASTIC BAG
SAMPLED BY : COLTON
SAMPLING COMPANY:

PARAMETER	METHOD	DILUTION	DETECTION LIMIT	REPORTED RESULTS	UNITS	DATE PREP	DATE TEST
Volatile Organic Compounds by EPA Method 8260B							
Gasoline **R**ange **O**rganics (C6-C10)	EPA 8260B	1	0.5	ND	mg/kg	06/10/21	06/10/21
Extractable Petroleum Hydrocarbons by 8015							
Diesel **R**ange **O**rganics (C10-C28)	EPA 8015M	1	50	ND	mg/kg	06/10/21	06/10/21
Oil **R**ange **O**rganics (C10-C28)	EPA 8015M	1	50	ND	mg/kg	06/10/21	06/10/21
Physical Parameters by APHA/ASTM/EPA Methods							
Percent Solids	Calculation	1	-	84	%	06/11/21	06/14/21
Total Metals by EPA 6020B Hot Water Soluble Extraction							
Boron	EPA 6020B	1	0.01	0.042	mg/L	06/15/21	06/17/21
Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction							
Calcium	EPA 6020B	1	0.0595	15.1	mg/L dry	06/14/21	06/16/21
Magnesium	EPA 6020B	1	0.0595	3.43	mg/L dry	06/14/21	06/16/21
Sodium	EPA 6020B	1	0.0595	3.52	mg/L dry	06/14/21	06/16/21
Calculated Analysis							
Sodium Adsorption Ratio	EPA 200.8 / CALC	1	-	0.213	-	06/17/21	06/27/21
Specific Conductance by EPA Method 120.1, Saturated Paste Extraction							
Specific Conductance	EPA 120.1	1	0.01	0.1140	mmhos/cm	06/15/21	06/15/21
Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction							
pH	EPA 9045D	1	-	7.8	-	06/15/21	06/15/21

BDL = Below Dection Limit
ND = Non Detect
N/A = Not Analyzed for this Parameter
mg/L = Milligram Per Liter or ppm (wt/vol); ug/L = Micrograms Per Liter or PPB (wt/vol)
SM = "Standard Methods for the Examination of Water and Wastewater", APHA, 19th Edition, 1995
EPA = "Methods of Chemical Analysis of Water and Wastes", USEPA, EPA-600/4-79-020 rev 3/83