

November 17, 2020

Mr. Michael Taylor
Springfield Township
1510 Paper mill Road
Wyndmoor, PA 19038

Re: Act 2 Remedial Investigation Summary Update
Former TCCA Site
1725 Walnut Avenue
Oreland, Pennsylvania
BL Project No. 17L5438

Dear Mr. Taylor:

We are pleased to submit this letter to provide an update summarizing recent remedial investigation activities under way at the above referenced property ("Site"). The recent ongoing activities at the Site are pursuant to Additional Services Agreement (ASA) No. 5 executed on December 20, 2019.

I. Summary of Additional Activities Completed

Per ASA No. 5 and the PADEP approved Work Plan, BL Companies completed the following tasks:

1. On September 21, 2020, BL Companies performed a Hazardous Building Materials Inspection (HBMI) and sampling program at the Site, and on September 29, 2020, BL Companies provided Springfield Township with a summary report/data package intended for the Township's use to obtain contractor bids for subsequent abatement and removal activities.
2. On September 28, 2020, additional delineation of surface soil and subsurface soil conditions was conducted at the Site via the advancement of a total of 18 soil borings in areas surrounding previously identified sample locations at which one or more constituents of concern (COCs) were detected above their respective Act 2 Statewide Health Standards (SHSs). The soil borings were advanced to depths of approximately 15 feet below the existing surface grade, and soil samples were collected from a shallow (0-2 feet) and a deeper (2-15 feet) interval from each boring location, for a total of 36 samples. All soil samples were submitted for laboratory analysis of VOCs, semi-volatile organic compounds (SVOCs), and priority pollutant list (PPL) metals. See Attachment A, Site Plan, for locations of the 18 soil borings conducted by BL Companies during this phase of the Site investigation. Table 1 summarizes the results of the soil sampling. Overall, the recent soil sample results reflect the already known conditions on the Site and provide a greater level of certainty of their extent.

3. On October 5 & 6, 2020, BL Companies coordinated the installation of four shallow monitoring wells at on- and off-Site locations, per the approved Work Plan. The locations of the shallow monitoring wells are intended to document ground water quality in the southern portion of the Site and water quality downgradient from monitoring well MW-6 where the highest concentrations of VOCs have been detected. The wells were drilled to depths of approximately 50 feet below grade. See Attachment A, Site Plan, for locations of all 10 wells installed in the monitoring well network.

4. On October 29 & 30, 2020, BL Companies conducted an initial round of ground water sampling from the monitoring well network (a total of 10 on- and off-Site wells). Ground water was collected into laboratory-supplied sample containers with the appropriate preservative(s), and the samples were placed into an ice-filled cooler through delivery to the testing laboratory for analysis of VOCs, SVOCs, and dissolved priority pollutant metals. Table 2 summarizes the results of the ground water sampling. The results of the ground water sampling suggest that there is little to no measurable impact to ground water in the southern portion of the Site, based on the data from monitoring wells MW-7 and MW-10. In the northern portion of the Site, concentrations of the constituents of concern have generally decreased since the last sampling event, with only one monitoring well exhibiting a compound above its PADEP Act 2 cleanup standard (TCE in MW-9). This concentration is lower than the previously detected concentrations at nearby well, MW-6, which currently shows a substantial decrease in its TCE concentration to a level that is below the Act 2 cleanup standard. Overall, these results are favorable, in that they do not indicate an increasing trend and potentially suggest that the extent of impacted ground water may be fairly limited.

BL Companies appreciates the opportunity to provide these environmental services to you. Should there be any questions regarding this letter, please do not hesitate to contact the undersigned.

Respectfully submitted,
BL Companies



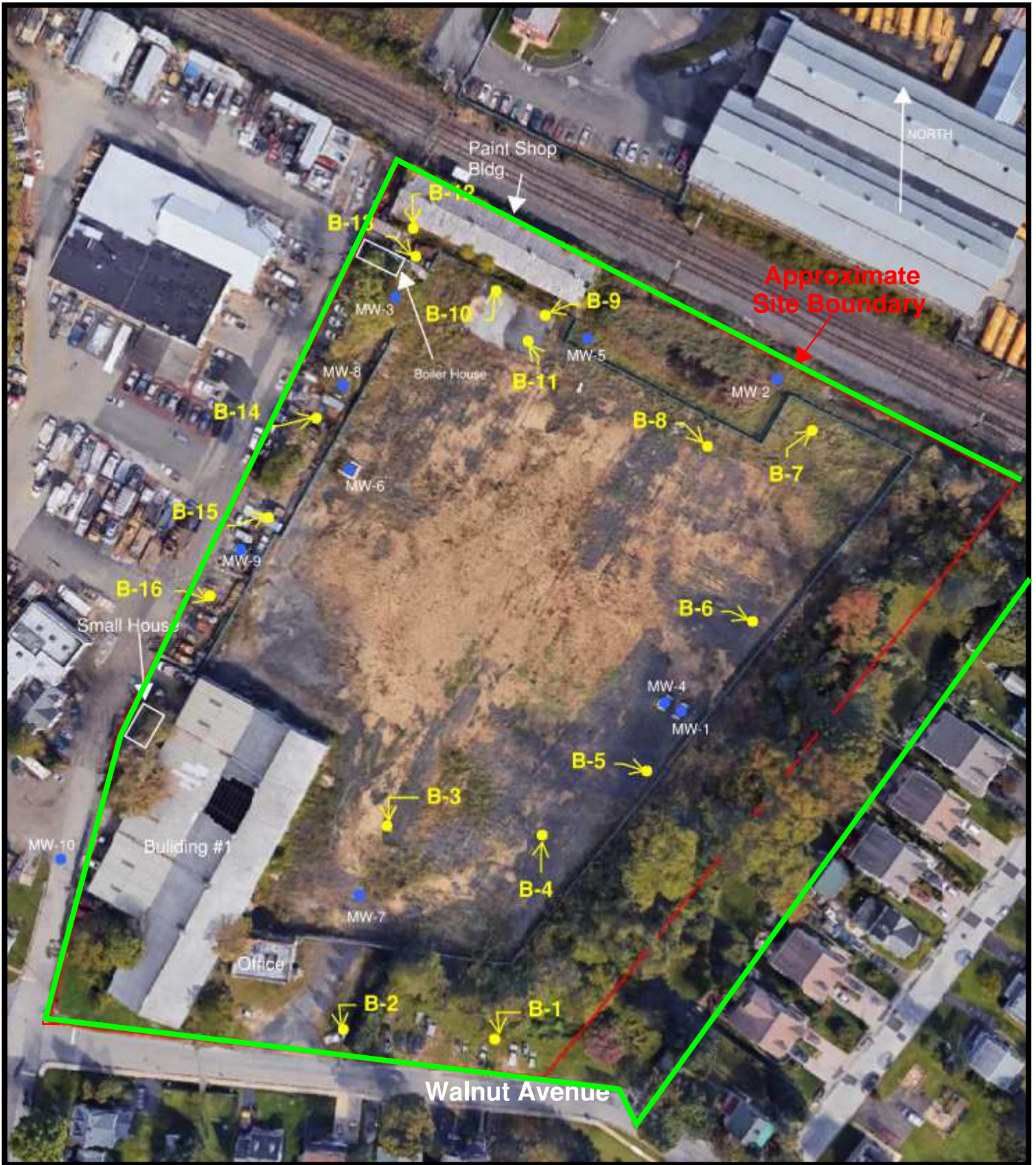
Michael P. McGowan, CHMM, LSRP
Senior Project Manager



An Employee-Owned Company

ATTACHMENT A

SITE PLAN



ATTACHMENT B

TABLE 1 – SOIL SAMPLING DATA

TABLE 2 – GROUND WATER SAMPLING DATA

Table 1
Summary of Soil Analytical Results
Former Tank Car Corporation of America Site
1725 Walnut Avenue
Springfield Twp., Montgomery County, PA
BL Project No. 17L5438

Sample ID:	Depth:	Residential Direct Contact 0-15 ft	Non Res Direct Contact 0-2 ft	Non Res Direct Contact 2-15 ft	B-1A	B-1B	B-2A	B-2B	B3-A	B-3B	B-4A	B-4B	B-5A	B-5B	B-6A	B-6B	B-7A	B-7B		
					1-2'	12-13'	1-2'	9-10'	0.5-1.5'	6-7'	0.5-1.5'	5-6'	0.5-1.5'	3-4'	1-2'	5-6'	0-1'	4.5-5.5'		
Date Sampled:	Units	Residential Soil to GW	Non Res Soil to GW	Non Res Soil to GW	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20	9/28/20		
Volatile Organic Compounds																				
Acetone	mg/kg	3800	10000	10000	10000	10000	<0.016	0.010 J	<0.012	<0.011	<0.012	0.0058 J	<0.0094	<0.012	<0.010	0.184	<0.015	<0.012	<0.011	0.0173
2-Butanone (MEK)	mg/kg	400	10000	400	10000	10000	<0.016 ^c	<0.011 ^c	<0.012 ^c	<0.011 ^c	<0.012	<0.0097	<0.0094	<0.012	<0.010	0.0277	<0.015	<0.012	<0.011	-
Benzene	mg/kg	0.5	57	0.5	290	330	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.00056
Carbon disulfide	mg/kg	150	10000	620	10000	10000	<0.0031	<0.0022	<0.0024	<0.0022	<0.0024	<0.0019	<0.0019	<0.0024	<0.0021	0.003	<0.0030	<0.0024	<0.0022	-
Chloroform	mg/kg	8	19	8	97	110	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0023
Ethylbenzene	mg/kg	70	180	70	890	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0011
Styrene	mg/kg	24	10000	24	10000	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0023
Toluene	mg/kg	100	10000	100	10000	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0011
m,p-Xylene	mg/kg	1000	1900	1000	8000	9100	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0011
o-Xylene	mg/kg	1000	1900	1000	8000	9100	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0011
Xylene (total)	mg/kg	1000	1900	1000	8000	9100	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0011
Semivolatile Organic Compounds																				
Acenaphthene	mg/kg	3100	13000	4700	190000	190000	<0.036	<0.038	<0.038	<0.039	<0.038	0.0166 J	0.657	0.0194 J	<0.039	0.773	<0.040	<0.039	<0.038	<0.040
Acenaphthylene	mg/kg	2800	13000	8000	190000	190000	<0.036	<0.038	<0.038	<0.039	0.0399	0.138	0.698	<0.038	<0.039	0.958	<0.040	<0.039	<0.038	<0.040
Anthracene	mg/kg	350	66000	350	190000	190000	<0.036	<0.038	<0.038	<0.039	0.0416	0.118	2.74	0.0446	<0.039	21.8	<0.040	0.0302 J	<0.038	<0.040
Benzo(a)anthracene	mg/kg	28	6	430	130	190000	0.0966	<0.038	<0.038	<0.039	0.127	0.421	10.3	0.114	0.0126 J	3.08	<0.040	0.0613	0.0153 J	0.0200 J
Benzo(a)pyrene	mg/kg	46	0.58	46	12	190000	0.1	<0.038	<0.038	<0.039	0.117	0.369	11.4	0.118	<0.039	3.34	<0.040	0.0714	<0.038	0.0224 J
Benzo(b)fluoranthene	mg/kg	26	3.5	170	76	190000	0.14	<0.038	<0.038	<0.039	0.107	0.376	13.1	0.148	<0.039	3.94	<0.040	0.0808	0.0173 J	0.0301 J
Benzo(g,h,i)perylene	mg/kg	180	13000	1800	190000	190000	0.0595	<0.038	<0.038	<0.039	0.0602	0.242	7.55	0.0686	<0.039	1.94	<0.040	0.0408	<0.038	0.0222 J
Benzo(k)fluoranthene	mg/kg	210	4	610	76	190000	0.0521	<0.038	<0.038	<0.039	0.0319 J	0.109	4.96	0.0528	<0.039	1.55	<0.040	0.0342 J	<0.038	<0.040
Chrysene	mg/kg	230	35	230	760	190000	0.112	<0.038	<0.038	<0.039	0.149	0.476	10.3	0.113	<0.039	3.34	<0.040	0.0694	0.0124 J	0.0215 J
Dibenzo(a,h)anthracene	mg/kg	25	1	270	22	190000	<0.036	<0.038	<0.038	<0.039	<0.038	0.0516	1.76	<0.038	<0.039	0.464	<0.040	<0.039	<0.038	<0.040
Fluoranthene	mg/kg	3200	8800	3200	130000	190000	0.216	<0.038	<0.038	<0.039	0.17	0.494	18.1	0.255	<0.039	5.93	<0.040	0.111	0.0205 J	0.0335 J
Fluorene	mg/kg	3400	8800	3800	130000	190000	<0.036	<0.038	<0.038	<0.039	0.0264 J	0.0524	0.799	0.0195 J	<0.039	2.58	<0.040	<0.039	<0.038	<0.040
Indeno(1,2,3-cd)pyrene	mg/kg	1500	3.5	22000	76	190000	0.0617	<0.038	<0.038	<0.039	0.0538	0.208	8.11	0.0797	<0.039	2.16	<0.040	0.0437	<0.038	0.0223 J
Naphthalene	mg/kg	25	160	25	760	190000	<0.036	<0.038	<0.038	<0.039	0.0152 J	0.0351 J	0.22	0.0134 J	<0.039	1.57	<0.040	0.0168 J	<0.038	<0.040
Phenanthrene	mg/kg	10000	66000	10000	190000	190000	0.0926	<0.038	<0.038	<0.039	0.165	0.293	9.77	0.183	<0.039	8.36	<0.040	0.0679	<0.038	<0.040
Pyrene	mg/kg	2200	6600	2200	96000	190000	0.195	<0.038	<0.038	<0.039	0.314	1.01	21.5	0.225	0.0138 J	6.28	<0.040	0.111	0.0189 J	0.0300 J
Priority Pollutant List Metals																				
Antimony	mg/kg	27	88	27	1300	190000	<2.2	<2.3	<2.3	<2.3	<2.4	<2.3	4.5	<2.3	<2.5	<11 ^d	<2.5	<2.3	<2.4	<2.4
Arsenic	mg/kg	29	12	29	61	190000	7.1 ^d	<12 ^d	7.9 ^d	<4.6 ^d	8.3 ^d	<11 ^d	<11 ^d	<2.5	12.9^d	<13 ^d	<12 ^d	<12 ^d	<12 ^d	
Beryllium	mg/kg	320	440	320	6400	190000	0.91 ^d	8.2 ^d	1.1 ^d	2.0 ^d	1.6 ^d	4.0 ^d	14.2 ^d	2.2 ^d	1.6	43.1 ^d	4.3 ^d	7.5 ^d	2.4 ^d	13.3 ^d
Cadmium	mg/kg	38	110	38	1600	190000	<1.1 ^d	<2.9 ^d	<1.1 ^d	<1.2 ^d	<1.2 ^d	<2.8 ^d	<2.9 ^d	<2.8 ^d	<0.62	<2.7 ^d	<3.1 ^d	<2.9 ^d	<2.9 ^d	<3.0 ^d
Chromium	mg/kg	-	-	-	-	-	28.8	23.4	32.7	20.7	30.1	16	57.2	25.2	4.2	73.9	15.6	41.9	15.1	30.4 ^d
Copper	mg/kg	43000	8100	43000	120000	190000	12.5 ^d	41.9 ^d	18.8 ^d	9.7 ^d	30.7 ^d	14.1 ^d	57.4 ^d	35.5 ^d	13.1	1570 ^d	198 ^d	159 ^d	62.9 ^d	487 ^d
Lead	mg/kg	450	500	450	1000	190000	13.2 ^d	105 ^d	13.3 ^d	8.9 ^d	19.1 ^d	<11 ^d	440 ^d	17.9 ^d	<12 ^d	793^d	75.7 ^d	66.0 ^d	23.5 ^d	153 ^d
Mercury	mg/kg	10	35	10	510	190000	<0.037	<0.035	0.052	0.049	0.053	<0.035	0.11	<0.037	0.14	0.24	0.11	<0.038	<0.037	<0.038
Nickel	mg/kg	650	4400	650	64000	190000	17	32.7	20.2	27.1	21.6	41.8	70.2	25.1	8.6	127	44.6	52.9	28.9	74.8
Selenium	mg/kg	26	1100	26	16000	190000	<4.4 ^d	<12 ^d	<4.6 ^d	<4.6 ^d	<4.7 ^d	<11 ^d	<11 ^d	<2.5	<11 ^d	<13 ^d	<12 ^d	<12 ^d	<12 ^d	
Silver	mg/kg	84	1100	84	16000	190000	<1.1 ^d	<2.9 ^d	<1.1 ^d	1.6 ^d	<1.2 ^d	<2.8 ^d	<2.9 ^d	<2.8 ^d	<0.62	2.9 ^d	<3.1 ^d	<2.9 ^d	<2.9 ^d	3.4 ^d
Zinc	mg/kg	12000	66000	12000	190000	190000	41.8	256	50	68.2	122	185	3640 ^d	111	56.3	11800	250	753	117	2260 ^d

Footnotes:

Only detected compounds shown

Bolded and Shaded Value indicates exceedence of an applicable Act 2 Statewide Health Standard or Screening Value.

^a Associated CCV outside of control limits low.

^b Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

^c Associated CCV outside of control limits high, sample was ND.

^d Elevated detection limit due to dilution required for high interfering element.

^e Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 2
Summary of Ground Water Analytical Results
Former Tank Car Corporation of America Site
1725 Walnut Avenue
Springfield Twp., Montgomery County, PA
BL Project No. 17L5438

Sample ID	Sample Date	Volatile Organic Compounds			Semi-Volatile Organic Compounds						Priority Pollutant Metals														
		cis-1,2-Dichloroethene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Pyrene	Aluminum	Barium	Boron	Calcium	Chromium	Cobalt	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Sodium	Vanadium	Zinc
MW-1	8/31/2017	<1.0	<1.0	<1.0	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99	214	28.8	772	45,800	<5.0	<5.0	688	<5.0	26,000	64.6	<10.0	2,850	6,990	<5.0	<10.0
	4/12/2018	<0.18	0.66 J	<0.39	<0.13	<0.24	<0.098	<0.15	<0.086	<0.16	28.1 J	30.0	763	49,000	1.0 J	<0.93	32.5 J	<1.8	27,100	14.0	1.1 J	3,100	8,510	<0.47	<1.0
	10/29/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<3.0	NA	NA	12.5	NA	NA	NA	35.7
MW-2	9/19/2017	<1.0	<1.0	<1.0	1.1	1.2	1.1	1.2	1.3	1.2	<50.0	83.0	1,670	61,700	<5.0	<5.0	<70.0	<5.0	47,600	40.0	<10.0	4,440	36,900	<5.0	214
	4/12/2018	<0.18	<0.32	<0.39	<0.12	<0.23	<0.091	<0.14	<0.080	<0.15	<14.1	43.8	1,150	48,400	<0.86	<0.93	13.0 J	<1.8	40,800	1.8 J	4.7 J	3,650	21,400	<0.47	116
	10/29/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<3.0	NA	NA	168	NA	NA	NA	168
MW-3	8/31/2017	<1.0	1.1	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<50.0	13.6	158	105,000	11.5	<5.0	<70.0	<5.0	40,200	<5.0	<10.0	4,550	57,400	<5.0	<10.0
	4/12/2018	<0.18	2.3	6.1	<0.12	<0.22	<0.090	<0.14	<0.079	<0.15	28.5 J	15.2	317	174,000	20.6	<0.93	86.8	<1.8	55,200	7.8	<1.0	4,350	90,000	0.71 J	3.2 J
	10/29/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
MW-4	8/31/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<50.0	42	856	82,200	<5.0	<5.0	<70.0	<5.0	24,400	1,200	<10.0	5,700	8,710	<5.0	<10.0
	4/12/2018	<0.18	0.55 J	<0.39	<0.12	<0.22	<0.089	<0.14	<0.079	<0.15	3170	71.5	857	85,500	9.5	6.6	11,500	3.5 J	28,300	1,710	12.7	6,840	9,920	5.9	58.3
	10/29/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
MW-5	8/31/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<50.0	56.2	877	15,500	10.9	6.2	<70.0	<5.0	9,670	16,400	10.4	10,400	79,900	21.7	17.4
	4/12/2018	<0.18	<0.32	<0.39	<0.12	<0.22	<0.090	<0.14	<0.079	<0.15	4,740	128	939	11,700	2.2 J	12.7	23,000	7.5	13,900	15,000	24.3	14,600	87,500	8.2	68.2
	10/30/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.32J	0.29J	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
ACT 2 STATEWIDE HEALTH STANDARDS																									
Residential Used Aquifer		70	5	5	0.2	0.19	0.19	1.9	260	130	NS	2,000	6,000	NS	100	13	NS	5	NS	300	100	NS	NS	2.9	2,000
Non-Residential Used Aquifer		70	5	5	0.2	1.2	0.55	1.9	260	130	NS	2,000	6,000	NS	100	35	NS	5	NS	300	100	NS	NS	8.2	2,000

All results expressed in micrograms per liter (µg/L)

Ground Water Standards relate to Used Aquifers with Total Dissolved Solids ≤ 2,500

Bolded values represent exceedances of the PADEP Residential Statewide Health Standard

Bolded and shaded values represent exceedances of PADEP Residential and Non-Residential Statewide Health Standards

NS - No standard established by PADEP

NA - Not analyzed

Table 2
Summary of Ground Water Analytical Results
Former Tank Car Corporation of America Site
1725 Walnut Avenue
Springfield Twp., Montgomery County, PA
BL Project No. 17L5438

Sample ID	Sample Date	Volatile Organic Compounds			Semi-Volatile Organic Compounds						Priority Pollutant Metals														
		cis-1,2-Dichloroethene	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Pyrene	Aluminum	Barium	Boron	Calcium	Chromium	Cobalt	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Sodium	Vanadium	Zinc
MW-6	8/31/2017	16.3	9.8	85	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<50.0	39.3	5,590	67,800	<5.0	<5.0	80.8	<5.0	24,400	23.3	<10.0	2,730	175,000	<5.0	<10.0
	4/12/2018	15.3	8.0	66.6	<0.13	<0.24	<0.095	<0.15	<0.084	<0.16	84.9	39.0	6,440	65,400	<0.86	<0.93	486	<1.8	21,900	46.5	1.5 J	2,680	183,000	0.82 J	3.4 J
	10/29/2020	<1.0	1.5	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
MW-7	10/30/2020	<1.0	<1.0	<1.0	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
MW-8	10/29/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	16.7	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
MW-9	10/29/2020	12.8	3.2	22.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
MW-10	10/29/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<10	NA	NA	<3.0	NA	NA	<10	NA	NA	NA	<20
ACT 2 STATEWIDE HEALTH STANDARDS																									
Residential Used Aquifer		70	5	5	0.2	0.19	0.19	1.9	260	130	NS	2,000	6,000	NS	100	13	NS	5	NS	300	100	NS	NS	2.9	2,000
Non-Residential Used Aquifer		70	5	5	0.2	1.2	0.55	1.9	260	130	NS	2,000	6,000	NS	100	35	NS	5	NS	300	100	NS	NS	8.2	2,000

All results expressed in micrograms per liter (µg/L)

Ground Water Standards relate to Used Aquifers with Total Dissolved Solids ≤ 2,500

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Bolded and shaded values represent exceedances of PADEP Residential and Non-Residential Statewide Health Standards

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