



Memorandum

January 28, 2021

To: Kevin Lund, EGLE Ref. No.: 11223073

From: ^{BX} Beth Landale/Allie Murphy Tel: 734-545-5423

cc: Grant Trigger, RACER

**Subject: Per-and Polyfluoroalkyl Substances (PFAS) Media Data Share
Former Willow Run Powertrain
Ypsilanti, Michigan**

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) GHD, presents this memo to document the submission of an Microsoft Excel file containing in place concentrations for PFAS in various media at the RACER Willow Run Powertrain site (Site). The data is being shared per your email request on January 15, 2020.

RACER has sampled several media for PFAS since 2018. To aid in your review of the attached data, Table 1 (attached) lists all the samples, their location, depth (if applicable), media and notes that will aid in understanding the purpose or use of the sample data. The PFAS data is divided into the following media or categories:

- Stagnant groundwater from bulkheaded utilities
- Groundwater from the groundwater collection system (French drain)
- Groundwater from wells
- Soil from soil borings and waste characterization for PFAS that was disposed of off site
- Storm water from active storm sewers. In some cases this data identified groundwater infiltration that has since been or is the process of being remedied

1. Laboratory Analysis

1.1 Analyte List

Since the time PFAS analysis began at the Site in 2018, the PFAS analyte list has evolved. This is due to additional PFAS analysis available at commercial laboratories and the revision to the Energy Great Lakes and Environment (EGLE) Michigan PFAS action response team (MPART) minimum analyte list.



1.2 Lab Qualifier

It should be noted that during the initial 2018 sampling at the Site there were elevated levels of Perfluorobutanoic acid (PFBA) identified and qualified by the laboratory with an uncommon qualified CI. That data has not been qualified with the CI since 2018, indicating the growing maturity of the PFAS analysis completed by laboratories over the last few years.

The CI qualifier is defined by the laboratory as "The peak identified by the data system exhibited chromatographic interference that could not be resolved there is a reason to suspect there may be a high bias".

Further review of our other data results showed this CI qualifier on many of the PFBA results from 2018. Comparison of CI qualified to nonqualified results in a few duplicate samples showed the qualified results were double the nonqualified results. The potential for this large discrepancy in the PFBA results helps explain the differences seen in the MH102 data.

Following this review, the project team decided to maintain the tracking of the CI qualifier after the data was validated data. Laboratory data qualified with CI is listed as JCI in the validated data.

Table 1

Willow Run PFAS Samples

Sample Name	Location	Xcoord	YCoord	Groundwater Zone	Top of Screen (ft amsl)	Bottom of Screen (ft amsl)	Ground Surface Elevation (ft amsl)	Top of Riser Elevation (ft amsl)	Tab	Notes	Laboratory
W-17358-072718-DB-013	P-879 Near Surface	13345007.71	270508.79	--	--	--	--	--	Bulkheaded utility	GW from bulkheaded storm sewer	TEST AMERICA WEST SACRAMENTO
W-17358-072718-DB-014	P-879	13345007.71	270508.786	--	--	--	--	--	Bulkheaded utility	GW from bulkheaded storm sewer	TEST AMERICA WEST SACRAMENTO
W-17358-072718-DB-015	P-1497 Near Surface	13343811.17	270472.98	--	--	--	--	--	Bulkheaded utility	GW from bulkheaded storm sewer	TEST AMERICA WEST SACRAMENTO
W-17358-072718-DB-016	P-1497	13343811.17	270472.981	--	--	--	--	--	Bulkheaded utility	GW from bulkheaded storm sewer	TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-002	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-007	French Drain: Clean Out 1	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-009	French Drain: Sump 1	13346089.74	271040.595	--	--	--	--	--	French Drain	water collected along north 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-010	French Drain: Sump 2	13346082.67	271046.193	--	--	--	--	--	French Drain	water collected along northeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-011	French Drain: Clean Out 2	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-012	French Drain: Clean Out 4	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-013	French Drain: Sump 4	13345560.2	270457.322	--	--	--	--	--	French Drain	water collected along southeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-014	French Drain: Sump 3	13345559.92	270473.36	--	--	--	--	--	French Drain	water collected along southwest 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-015	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-017	French Drain: Clean Out 3	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-022120-AM-126	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-030719-DB-103	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-032218-DA-010	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-032819-DB-001	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-032918-DA-011	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-061520-DB-001	French Drain: Sump 1	13346089.74	271040.595	--	--	--	--	--	French Drain	water collected along north 500 ft section of drain	TEST AMERICA WEST SACRAMENTO

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W-17358-061520-DB-002	French Drain: Sump 2	13346082.67	271046.193	--	--	--	--	--	French Drain	water collected along northeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-061520-DB-003	French Drain: Sump 3	13345559.92	270473.36	--	--	--	--	--	French Drain	water collected along southwest 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-061520-DB-004	French Drain: Sump 4	13345560.2	270457.322	--	--	--	--	--	French Drain	water collected along southeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-061820-AM-133	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-070918-DB-001	Vault 1-Sump 1	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-002	Vault 1-Sump 2	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-003	French Drain: Sump 1	13346089.74	271040.595	--	--	--	--	--	French Drain	water collected along north 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-004	French Drain: Sump 2	13346082.67	271046.193	--	--	--	--	--	French Drain	TOP analysis. water collected along northeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-005	Vault 2-Sump 3	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-006	Vault 2 Sump 4	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-007	French Drain: Sump 3	13345559.92	270473.36	--	--	--	--	--	French Drain	water collected along southwest 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-008	French Drain: Sump 4	13345560.2	270457.322	--	--	--	--	--	French Drain	TOP analysis. water collected along southeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-070918-DB-009	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-071019-DB-111	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-071118-DB-010	Sump 1- Transducer	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-071118-DB-011	Sump 1- Low Level Switches	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-071420-AM-005	French Drain: Sump 1	13346089.74	271040.595	--	--	--	--	--	French Drain	water collected along north 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-071420-AM-006	French Drain: Sump 2	13346082.67	271046.193	--	--	--	--	--	French Drain	water collected along northeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-071420-AM-007	French Drain: Sump 3	13345559.92	270473.36	--	--	--	--	--	French Drain	water collected along southwest 500 ft section of drain	TEST AMERICA WEST SACRAMENTO
W-17358-071420-AM-008	French Drain: Sump 4	13345560.2	270457.322	--	--	--	--	--	French Drain	water collected along southeast 500 ft section of drain	TEST AMERICA WEST SACRAMENTO

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Sample Name	Location	Xcoord	YCoord	Groundwater Zone	Top of Screen (ft amsl)	Bottom of Screen (ft amsl)	Ground Surface Elevation (ft amsl)	Top of Riser Elevation (ft amsl)	Tab	Notes	Laboratory
W-17358-071420-AM-135	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-091118-DA-005	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-091118-DA-006	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-100920-AM-142	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-101920-DR-001	MH-102 Influent	--	--	--	--	--	--	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-111918-AM-001	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-111918-AM-002	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-111920-DB-003	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-112420-AM-005	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		TEST AMERICA WEST SACRAMENTO
W-17358-112918-DB-096	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-120519-CB-121	MH-102	13345286.07	270490.708	--	--	--	717.2	--	French Drain		MERIT LABORATORIES INC., EAST LANSING, MI
GW-17358-031618-DB-003	CRA-973M	13345893.51	270697.908	Shallow	713.2	703.2	716.2	715.7	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-004	CRA-974M	13345872.13	270558.518	Shallow	713.3	705.3	716.3	715.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-005	CRA-974M	13345872.13	270558.518	Shallow	713.3	705.3	716.3	715.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-006	CRA-239M	13345772.63	270891.386	Shallow	unknown	704.2	716.5	715.9	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-007	CRA-224M	13345985.17	271170.37	Shallow	unknown	704.1	716.3	715.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-008	CRA-806M	13345197.79	270585.07	Shallow	712.4	706.4	717.4	716.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-031618-DB-009	CRA-217M	13346002.44	271442.118	Shallow	711.2	704.2	715.7	715.5	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052020-DR-022	CRA-343M	13346080.93	271563.313	Shallow	712.6	707.6	714.6	714.3	Groundwater		TEST AMERICA WEST SACRAMENTO

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GW-17358-052020-DR-023	CRA-320M	13345859.07	271693.817	Shallow	712.2	707.2	717.2	716.9	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052120-DR-024	CRA-611M	13346111.18	270664.436	Shallow	712.2	707.2	715.2	714.7	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052120-DR-025	GHD-1005M	13346090.95	270446.163	Shallow	711.2	701.2	715.2	714.5	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052120-DR-026	GHD-1006M	13346018.12	270377.339	Shallow	713.4	703.4	715.9	715.4	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052120-DR-027	CRA-974M	13345872.13	270558.518	Shallow	713.3	705.3	716.3	715.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052120-DR-028	GHD-1229M	13344984.02	270460.96	Shallow	714.6	705.1	717.6	717.4	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052620-DR-030	GHD-1226M	13344886.15	270311.31	Shallow	715.4	705.9	718.9	720.4	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-052620-DR-031	GHD-1223M	13344848.53	270390.33	Shallow	715.5	707.0	718.5	720.1	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-081418-DR-103	CRA-703M	13342962.9	273141.692	Shallow	719.4	709.4	723.4	726.3	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121619-DA-001	GHD-1234M	13344766.14	269711.46	Shallow	714.4	707.4	717.4	720.5	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121619-DA-002	GHD-1234I	13344767.26	269707.73	Intermediate	705.4	700.4	717.4	720.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121619-DA-003	CRA-889I	13344893.54	269454.349	Intermediate	706.1	700.1	716.1	715.8	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121619-DA-005	GHD-1232M	13344599.68	269952.556	Shallow	713.9	706.9	716.9	720.5	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121619-DA-006	GHD-1232I	13344599.37	269955.925	Intermediate	703.3	698.3	716.8	720.7	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121719-DA-004	CRA-889M	13344889.97	269454.542	Shallow	713.1	708.6	716.1	715.5	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121719-DA-007	CRA-140M	13344587.59	270147.13	Shallow	711.2	706.2	718.2	717.6	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121719-DA-008	CRA-267M	13344335.07	270235.54	Shallow	unknown	707.2	719.7	722.4	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121719-DA-009	CRA-609M	13344846.64	270201.512	Shallow	712.9	707.9	716.9	716.3	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121719-DA-010	GHD-1233I	13344536.08	269695.585	Intermediate	703.5	698.0	716.5	720.4	Groundwater		TEST AMERICA WEST SACRAMENTO

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Sample Name	Location	Xcoord	YCoord	Groundwater Zone	Top of Screen (ft amsl)	Bottom of Screen (ft amsl)	Ground Surface Elevation (ft amsl)	Top of Riser Elevation (ft amsl)	Tab	Notes	Laboratory
GW-17358-121719-DA-011	GHD-1233I	13344536.08	269695.585	Intermediate	703.5	698.0	716.5	720.4	Groundwater		TEST AMERICA WEST SACRAMENTO
GW-17358-121719-DA-012	GHD-1233M	13344535.77	269699.598	Shallow	713.9	707.9	716.9	719.5	Groundwater		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-001	GHD-1004M	13346097.28	271109.492	Shallow	711.4	701.4	715.4	714.9	Groundwater		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-002	GHD-1004M	13346097.28	271109.492	Shallow	711.4	701.4	715.4	714.9	Groundwater		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-003	CRA-321M	13346085.53	271454.513	Shallow	709.6	704.6	714.6	714.3	Groundwater		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-004	CRA-613M	13346105.24	270869.465	Shallow	712.7	707.7	715.2	714.9	Groundwater		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-005	GHD-1005M	13346090.95	270446.163	Shallow	711.2	701.2	715.2	714.5	Groundwater		TEST AMERICA WEST SACRAMENTO
W-017358-051118-DA-006	CRA-614M	13346101.8	270969.668	Shallow	712.8	707.8	715.3	715.0	Groundwater		TEST AMERICA WEST SACRAMENTO
W-17358-060618-DB-001	Red Brick Building Excavation	--	--	--	n/a	n/a	n/a	n/a	Groundwater		TEST AMERICA WEST SACRAMENTO
SO-17358-072318-DB-001	Blue Area	--	--	--	n/a	n/a	n/a	n/a	Soil		SGS - ACCUTEST LABORATORIES, ORLANDO,FL
SO-17358-072318-DB-002	Orange Area	--	--	--	n/a	n/a	--	--	Soil		SGS - ACCUTEST LABORATORIES, ORLANDO,FL
SO-17358-072318-DB-003	Orange Area	--	--	--	n/a	n/a	--	--	Soil		SGS - ACCUTEST LABORATORIES, ORLANDO,FL
SO-17358-080218-DB-001	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-002	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-003	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-004	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-005	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-006	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-007	BH-1005	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO

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SO-17358-080218-DB-008	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-009	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-010	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-011	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-012	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-013	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-014	BH-1004	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-015	BH-321	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-016	BH-321	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-017	BH-321	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-018	BH-321	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-080218-DB-019	BH-321	--	--	--	n/a	n/a	n/a	n/a	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-001	GHD-1232I	13344599.37	269955.925	Intermediate	703.3	698.3	716.8	720.7	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-002	GHD-1232I	13344599.37	269955.925	Intermediate	703.3	698.3	716.8	720.7	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-003	GHD-1233I	13344536.08	269695.585	Intermediate	703.5	698.0	716.5	720.4	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-004	GHD-1233I	13344536.08	269695.585	Intermediate	703.5	698.0	716.5	720.4	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-005	GHD-1233I	13344536.08	269695.585	Intermediate	703.5	698.0	716.5	720.4	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-006	GHD-1234I	13344767.26	269707.73	Intermediate	705.4	700.4	717.4	720.8	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-007	GHD-1234I	13344767.26	269707.73	Intermediate	705.4	700.4	717.4	720.8	Soil		TEST AMERICA WEST SACRAMENTO

Table 1

Willow Run PFAS Samples

Sample Name	Location	Xcoord	YCoord	Groundwater Zone	Top of Screen (ft amsl)	Bottom of Screen (ft amsl)	Ground Surface Elevation (ft amsl)	Top of Riser Elevation (ft amsl)	Tab	Notes	Laboratory
SO-17358-110719-CB-008	GHD-1234I	13344767.26	269707.73	Intermediate	705.4	700.4	717.4	720.8	Soil		TEST AMERICA WEST SACRAMENTO
SO-17358-110719-CB-009	GHD-1234I	13344767.26	269707.73	Intermediate	705.4	700.4	717.4	720.8	Soil		TEST AMERICA WEST SACRAMENTO
W-17358-013020-DB-001	Outfall 84	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-002	MH-865 NW Inlet	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-003	MH-865	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-004	MH-864 NW Inlet	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-005	MH-864	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-006	MH-862	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-007	ESSD	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-008	Aquaswirl	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-009	Aquaswirl	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-013020-DB-010	MH-150	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-003	MH-70	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-004	MH-80	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-005	East MH-90	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-006	North MH-90	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-007	Aquaswirl	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-008	East MH-100	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-009	South MH-100	13345849.86	270462.781	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI

Table 1

Willow Run PFAS Samples

Sample Name	Location	Xcoord	YCoord	Groundwater Zone	Top of Screen (ft amsl)	Bottom of Screen (ft amsl)	Ground Surface Elevation (ft amsl)	Top of Riser Elevation (ft amsl)	Tab	Notes	Laboratory
W-17358-051320-AM-010	East MH-147	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-011	NE MH-149	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-012	NE MH-150	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-051320-AM-013	N MH-151	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-001	Outfall 84	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-002	MH-865 NW Inlet	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-014	E MH-544	13344851.78	269414.646	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-015	N MH-559	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-016	W MH-559	13344552.39	269403.857	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-017	W MH-533	13344197.39	269391.162	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-052120-AM-018	MH-XXX	13344530.72	270054.222	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-061120-AM-001	MH-90 Outlet	13345647.45	270451.122	--	n/a	n/a	--	--	Stormwater	Leaking groundwater sample collected from pipe outlet	MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-121319-DB-001	ESSD-Manhole #	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI
W-17358-121319-DB-002	Outfall 84	--	--	--	n/a	n/a	--	--	Stormwater		MERIT LABORATORIES INC., EAST LANSING, MI