Appendix B2
Sampling Forms

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AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-3	Date: 5/8/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK Checked By: PD
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic	Controller: 6413	Compressor: NA
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI Sonde ID: 18E100040	Handset ID: 18C104594
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 4-9	Initial Depth to Water (BTOC): 4.00' Ambient PID (ppm): NA
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 6.50' Well Head PID (ppm): NA
	Condition of Well/Comments: NA		
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/8/19	1040	4.42	0.0 L	0.1	10.4	1.04	7.34	7.30	81.7	>1100	NA	NA	
	1045	4.46	0.5 L		10.2	1.01	5.84	7.01	95.8	260			
	1050	4.49	1.0 L		10.2	1.01	5.52	7.01	95.9	97.2			
	1055	4.52	1.5 L		10.0	1.01	5.69	7.02	98.3	56.1			
	1100	4.55	2.0 L		9.5	1.00	6.04	7.02	102.3	30.4			
	1105	4.57	2.5 L		9.7	1.00	5.69	7.01	104.0	18.6			
	1110	4.59	3.0 L		9.5	1.01	6.02	7.02	105.2	9.2			
	1115	4.60	3.5 L		9.4	1.00	6.07	7.01	109.0	6.4			
	1120		4.0 L		9.4	1.00	5.78	7.01	111.0	3.8			
	1125		4.5 L		9.3	1.01	5.84	7.00	114.4	3.0			
	1130		5.0 L		9.3	1.01	5.82	7.00	116.9	3.9			

Pumping Rate: ≤ 0.5L/min; Measurements: every 3 - 5 minutes; Stabilization is defined as the following for three consecutive readings: ±3% Temp, ±3% Conductivity; ± 10% DO; ±0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
(1.32gal)	4-125 mL HDPE	None	PFAS - EPA 537 Modified

GrandLedge

AOI 1-3-GW-4-9
Collected @ 1135

AOI 1-3-GW-4-9 DUP

AECOM Monitoring Well Sample Collection Form

Page 1 of 1

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-4	Date: 5/8/19		
	Project Name: Grand Ledge, MI	Project Number: 60552122	Recorded By: SK	Checked By: PD	
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic		Controller: 6413	Compressor: NA	
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI	Sonde ID: 18E100040	Handset ID: 18C604594	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O			
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 17-22	Initial Depth to Water (BTOC): 13.58'	Ambient PID (ppm): NA	
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 19.50'	Well Head PID (ppm): NA	
	Condition of Well/Comments: NA				
	NOTE:				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/8/19	0905	13.83'	0.0 L	0.1	8.9	1.89	1.52	7.40	-116.8	>1000	NA	NA	
	0910	13.87	0.5 L		9.0	1.90	0.72	7.16	-139.2	669			
	0915	13.90	1.0 L		9.1	1.90	0.78	7.12	-136.1	243			
	0920	14.00	1.5 L		9.4	1.90	0.28	7.09	-132.7	114			
	0925	"	2.0 L		9.3	1.91	0.20	7.06	-128.4	77.7			
	0930	"	2.5 L		9.3	1.91	0.17	7.04	-120.6	37.2			
	0935	"	3.0 L		9.3	1.92	0.14	7.03	-115.0	22.4			
	0940	"	3.5 L		9.2	1.92	0.20	7.03	-109.2	14.8			
	0945	"	4.0 L		9.3	1.92	0.18	7.02	-108.6	6.5			
	0950	"	4.5 L		9.5	1.92	0.16	7.02	-107.3	5.9			
	0955	"	5.0 L		9.6	1.92	0.15	7.02	-104.2	6.2			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ±3% Temp, ±3% Conductivity; +10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

(1.32 gal)

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
	6 - 125mL HDPE	None	PFAS - EPA 537 Modified

GrandLedge

AOI 1-4-17-22
collected @1000

AOI 1-4-17-22 MS/MSD

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge MI	LocID: AOI 1-2	Date: 5/8/19		
	Project Name: Grand Ledge SI	Project Number: 60552122	Recorded By: SK	Checked By: PD	
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic		Controller: 6413	Compressor: NA	
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type:	Sonde ID: 18E100040	Handset ID: 18C104594	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O			
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 5-10'	Initial Depth to Water (BTOC): 4.25'	Ambient PID (ppm): NA	
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 7.50'	Well Head PID (ppm): NA	
	Condition of Well/Comments: NA				
	NOTE:				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/8/19	1150	4.32	0.0 L	0.1	9.1	2.03	0.74	6.66	-78.7	>1100	NA	NA	
	1155	4.35	0.5 L		9.0	2.01	0.23	6.66	-82.0	228			
	1200	4.42	1.0 L		9.0	1.98	0.16	6.67	-81.8	160			
	1205	4.50	1.5 L		9.1	1.99	0.14	6.67	-81.0	123			
	1210	4.58	2.0 L		9.3	1.96	0.13	6.69	-85.0	78.2			
	1215	4.60	2.5 L		9.2	1.95	0.11	6.69	-83.6	68.1			
	1220	"	3.0 L		9.3	1.95	0.10	6.69	-81.7	59.0			
	1225	"	3.5 L		9.2	1.95	0.11	6.69	-82.0	50.1			
	1230	"	4.0 L		9.2	1.95	0.13	6.69	-82.3	47.9			
	1235	"	4.5 L		9.4	1.94	0.11	6.70	-81.2	41.7			
	1240	"	5.0 L		9.5	1.94	0.12	6.70	-81.6	35.9			

Pumping Rate: ≤ 0.5L/min; Measurements: every 3 - 5 minutes; Stabilization is defined as the following for three consecutive readings: ±3% Temp, ±3% Conductivity; +10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

(1.32 gal)

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 1-2-GW-5-10 collected @ 1320	2-125 mL HDPE	None	PFAS - EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-2	Date: 5/8/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK Checked By: PD

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/8/19	1245	4.60	5.5 L	0.1	9.4	.94	0.14	6.70	-82.1	29.1	NA	NA	Water appears
	1250	1	6.0 L		9.6	.93	0.10	6.70	-81.3	24.6			more turbid
	1255	1	6.5 L		9.7	.92	0.15	6.70	-80.7	19.8			
	1300	1	7.0 L		9.4	.94	0.14	6.72	-82.5	14.2			
	1305	1	7.5 L		9.5	.93	0.13	6.71	-82.0	19.10			
	1310	1	8.0 L		9.5	.93	0.11	6.71	-81.1	18.17			
	1315	1	8.5 L		9.6	.93	0.12	6.71	-81.6	18.69			
	1320		9.0 L		9.6	.93	0.10	6.71	-81.4	19.21			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ±3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 2-2	Date: 5/9/19		
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK	Checked By: PD	
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic		Controller: 6413	Compressor: NA	
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI	Sonde ID: 18E100040	Handset ID: 18C104594	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O			
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 5-10	Initial Depth to Water (BTOC): 3.10'	Ambient PID (ppm): NA	
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 7.50'	Well Head PID (ppm): NA	
	Condition of Well/Comments: NA				
	NOTE:				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	0915	3.20	0.0 L	0.1	11.5	1.22	2.29	7.28	106.7	>1100	NA	NA	
	0920	3.23	0.5 L		11.6	1.22	0.65	7.08	57.7	562			
	0925	3.27	1.0 L		11.6	1.22	0.31	6.98	47.2	273			
	0930	3.30	1.5 L		11.7	1.21	0.22	6.97	34.3	109			
	0935	3.34	2.0 L		11.8	1.21	0.26	6.99	16.5	62.4			
	0940	3.35	2.5 L		11.8	1.21	0.26	7.00	14.2	40.8			
	0945	"	3.0 L		11.9	1.21	0.31	7.00	13.5	22.4			
	0950	"	3.5 L		12.1	1.20	0.53	6.99	16.8	14.6			
	0955	"	4.0 L		12.1	1.21	0.50	7.00	8.4	9.8			
	1000	"	4.5 L		12.0	1.21	0.52	7.03	3.2	9.1			
	1005	"	5.0 L		12.1	1.20	0.55	7.04	1.4	10.0			

Pumping Rate: ≤ 0.5L/min; Measurements: every 3 - 5 minutes; Stabilization is defined as the following for three consecutive readings: ±3% Temp, ±3% Conductivity, ±10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

(1.32 gal)

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 2-2-GW-5-10 collected @ 1010	2 - 125mL HDPE	None	PFAS - EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-6	Date: 5/8/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK Checked By: PD
EQUIPMENT	Sampling Equipment - Pump: Geopump Portable	Controller: 6413	Compressor: NA
	Water Level Indicator Type/ID#: NA	Water Quality Meter Type: YSI Sonde ID: 18E100040	Handset ID: 18C104594
	PID Type/ID#: NA	Equipment Decon: NA	
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 15-20	Initial Depth to Water (BTOC): Flowing Artesian
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 17.50'
	Condition of Well/Comments: NA		Ambient PID (ppm): NA
	NOTE: Flowing Artesian Well		Well Head PID (ppm): NA

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/8/19	1545	NM	0.0 L	0.1	10.3	1.48	1.15	7.09	-54.9	866	NA	NA	
	1550		0.5 L		10.3	1.47	0.34	6.95	-55.8	203			
	1555		1.0 L		10.3	1.47	0.17	6.94	-61.1	34.1			
	1600		1.5 L		10.2	1.47	0.14	6.97	-64.4	17.7			
	1605		2.0 L		10.4	1.47	0.12	6.99	-67.6	15.8			
	1610		2.5 L		10.3	1.46	0.11	7.00	-69.2	11.6			
	1615		3.0 L		10.5	1.47	0.11	7.02	-70.8	11.8			
			=(0.79gal)										

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 1-6-GW-15-20 collected @ 1620	2-125 mL HDPE	None	PFAS - EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 2-3	Date: 5/9/19 / 5/10/19		
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK	Checked By: TPD	
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic	Controller: 6913	Compressor: NA		
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI	Sonde ID: 18E100040	Handset ID: 18C104594	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O			
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 5-10	Initial Depth to Water (BTOC): 1.98'	Ambient PID (ppm): NA	
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 7.50'	Well Head PID (ppm): NA	
	Condition of Well/Comments: NA				
	NOTE: well went dry during purging, will allow to recharge then take instantaneous sample and reading.				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	1050	—	0.0	0.1	—	—	—	—	—	>1100	NA	NA	
			0.044gal										
5/10/19	0935	5.90	0.1L	0.1	9.7	0.699	8.92	7.41	11.5	>1100	NA	NA	
			= 0.02gal										

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ±3% Temp, ±3% Conductivity; ±10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 2-3-GW-5-10 Collected @ 0940	2 - 125mL HDPE	None	PFAS - EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 2-1		Date: 5/9/19	
	Project Name: Grand Ledge SI	Project Number: 60552172		Recorded By: SK	Checked By: PD
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic		Controller: 6413		Compressor: NA
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI	Sonde ID: 18E100040		Handset ID: 18C104594
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O			
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 5-10	Initial Depth to Water (BTOC): 1.82		Ambient PID (ppm): NA
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 7.50'		Well Head PID (ppm): NA
	Condition of Well/Comments: NA				
	NOTE:				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	1135	1.85'	0.0 L	0.1	11.9	0.613	5.10	7.26	49.6	71100	NA	NA	
	1140	1.90	0.5 L		12.3	0.599	4.73	6.97	76.1	229			
	1145	1.92	1.0 L		12.8	0.596	4.61	6.98	77.7	112			
	1150	1.98	1.5 L		12.7	0.595	4.50	7.01	80.6	89.1			
	1155	2.02	2.0 L		12.8	0.595	4.56	7.02	82.2	54.6			
	1200	2.05	2.5 L		12.6	0.595	4.56	7.02	81.4	32.8			
	1205		3.0 L		12.5	0.596	4.52	7.03	76.8	17.9			
	1210		3.5 L		12.6	0.594	4.56	7.02	81.4	9.02			
	1215		4.0 L		12.6	0.596	4.47	7.02	81.8	5.14			
	1220		4.5 L		12.5	0.596	4.53	7.02	78.0	5.01			
	1225		5.0 L		12.6	0.593	4.47	7.02	84.3	4.81			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ±3% Temp, ±3% Conductivity; +10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

(1.32 gal)

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 2-1-GW-5-10 Collected @ 1230	2-125mL HDPE	None	PFAS-EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-1	Date: 5/9/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK Checked By: PD
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic	Controller: 6413	Compressor: NA
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI Sonde ID: 18E100040	Handset ID: 18C104594
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 7-12	Initial Depth to Water (BTOC): 2.14' Ambient PID (ppm): NA
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 9.50' Well Head PID (ppm): NA
	Condition of Well/Comments: NA		
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	1300	2.60	0.0 L	0.1	13.9	2.68	0.68	7.30	-68.6	>1100	NA	NA	
	1305	2.64	0.5 L		13.4	3.51	2.33	7.15	-54.6	>1100			
	1310	2.68	1.0 L		14.1	3.63	2.81	7.21	-32.2	889			
	1315	2.72	1.5 L		13.1	3.63	2.99	7.23	-18.0	371			
	1320	2.75	2.0 L		13.3	3.61	2.97	7.22	-17.5	279			
	1325	2.79	2.5 L		13.8	3.60	2.90	7.22	-17.0	250			
	1330	2.82	3.0 L		13.6	3.52	2.86	7.23	-18.9	411			
	1335	2.85	3.5 L		13.8	3.59	2.95	7.24	-19.3	295			
	1340	2.87	4.0 L		13.9	3.51	3.16	7.24	-21.1	961			
	1345	2.89	4.5 L		14.0	3.58	3.26	7.25	-20.0	936			
	1350	2.90	5.0 L		14.7	3.54	3.66	7.25	-23.5	824			

Pumping Rate: ≤ 0.5L/min; Measurements: every 3 - 5 minutes; Stabilization is defined as the following for three consecutive readings: ±3% Temp, ±3% Conductivity; ±10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

1.32 gal SK

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 1-1-GW-7-12 Collected @ 1505	2 - 125mL HDPE	None	PFAS - EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-1	Date: 5/9/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: JA Checked By: TPD

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	1355	2.90	5.5 L	0.1	13.7	3.51	3.09	7.26	-24.5	>1100	NA	NA	
	1400		6.0 L		13.5	3.50	3.29	7.24	-22.1	749			
	1405		6.5 L		13.4	3.46	3.18	7.23	-20.0	468			
	1410		7.0 L		13.3	3.45	3.31	7.24	-19.4	322			
	1415		7.5 L		13.4	3.43	3.20	7.24	-19.6	201			
	1420		8.0 L		13.5	3.40	3.19	7.24	-19.2	502			
	1425		8.5 L		13.4	3.21	3.26	7.25	-15.1	320			
	1430		9.0 L		13.3	3.12	3.30	7.25	-11.8	451			
	1435		9.5 L		13.2	3.07	3.34	7.26	-9.7	519			
	1440		10.0 L		13.2	2.92	3.81	7.28	-2.3	283			
	1445		10.5 L		13.3	3.03	4.00	7.30	5.9	209			
	1450		11.0 L		13.4	2.95	4.10	7.32	7.7	177			
	1455		11.5 L		13.3	2.99	3.98	7.32	9.2	509			
	1500		12.0 L		13.4	3.02	3.81	7.33	11.4	441			
			=(3.17 gal)										

Pumping Rate: ≤ 0.5L/min; Measurements: every 3 - 5 minutes; Stabilization is defined as the following for three consecutive readings: ±3% Temp, ± 3% Conductivity; ± 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-5	Date: 5/9/19		
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK	Checked By: PD	
EQUIPMENT	Sampling Equipment - Pump: Geopump Peristaltic	Controller: 6413	Compressor: NA		
	Water Level Indicator Type/ID#: 2595	Water Quality Meter Type: YSI	Sonde ID: 18E100040	Handset ID: 18C104594	
	PID Type/ID#: NA	Equipment Decon: Liquinox/DI H2O			
WELL & SAMPLING INFO	Description: 1" Temp Well	Screen Interval (BTOC): 5-10	Initial Depth to Water (BTOC): 2.62'	Ambient PID (ppm): NA	
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 7.50'	Well Head PID (ppm): NA	
	Condition of Well/Comments: NA				
	NOTE:				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	~~1515~~	2.70	0.0L	0.1	11.9	0.90	1.32	6.97	9.2	>1100	NA	NA	Time = 1520
	1525	2.75	0.5L		12.0	0.90	.30	6.91	3.3	>1100			
	1530	2.80	1.0L		12.1	0.89	1.20	6.94	-3.0	>1100			
	1535	2.82	1.5L		12.2	0.90	1.16	6.97	-11.2	>1100			
	1540	2.84	2.0L		12.0	0.90	1.11	6.97	-5.7	672			
	1545	2.85	2.5L		12.1	0.90	1.10	6.96	-8.9	516			
	1550	2.88	3.0L		12.2	0.90	1.20	6.98	-11.1	441			
	1555	2.89	3.5L		12.1	0.91	3.10	6.98	-5.6	>1100			
	1600	2.90	4.0L		12.4	0.91	4.00	6.98	5.2	548			
	1605	2.92	4.5L		12.1	0.91	4.50	6.98	0.0	421			
	1610	2.95	5.0L		12.1	0.93	5.02	7.01	-3.4	400			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ±3% Temp, ±3% Conductivity; ±10% DO; ±0.1 pH; ±10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
GrandLedge AOI 1-5-GW-5-10 collected @ 1650	2-125mL HDPE	None	PFAS - EPA 537 Modified

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge MI	LocID: AOI 1-5	Date: 5/9/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SM Checked By: PD

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
5/9/19	1615	3.00	5.5 L	0.1	12.2	1.02	5.25	7.05	-1.4	510	NA	NA	
	1620	"	6.0 L	"	12.3	1.02	5.15	7.06	4.6	472			
	1625	"	6.5 L	"	12.3	1.02	5.30	7.06	8.6	521			
	1630	"	7.0 L	"	12.5	1.02	5.09	7.06	9.2	504			
	1635	"	7.5 L	"	12.5	1.03	4.71	7.06	12.4	462			
	1640	"	8.0 L	"	12.4	1.03	4.62	7.07	14.9	492			
	1645	"	8.5 L	"	12.3	1.03	4.94	7.07	14.6	511			
			=(2.25 gal)										

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ±3% Temp, ± 3% Conductivity; ± 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Surface Water and Sediment Sample Collection Form
~~Gentonment/ Lake Margrethe, Camp Grayling JMTC, MI~~ Grand Ledge, MI

Date: 5/7/19
Time: 1100
Staff: S. Kalemba

Loc ID: AOI 1-7
Northing:
Easting:

Site Conditions
Water depth (ft): 0-1'
Flowing: Yes (No)
Channel width (ft): N/A
Revetted Channel: Yes / (No) / N/A
Notes:
Samples taken from Retention Pond.

Field Data Meter Type: YSI Meter ID: 18C104594

Water Quality Parameters:	Middle of Water C
Measurement Depth (ft)	0-1
Temperature (deg. C)	10.2
Sp. Conductance (uS/cm)	397.0
Dissolved Oxygen (mg/L)	7.72
Dissolved Oxygen (% sat)	68.8
pH (S.U.)	7.66
Turbidity	11.9

GrandLedge
AOI 1-7-SW-0-1
AOI 1-7-SW-01 DUP

Surface water sample collection:
circle if collected: (FD) MS/MSD
Sample ID: AOI 1-7-SW-01
Sample Time: 1120
Type of Sample (Grab) / Pump / Other
Sample depth (inches): 12"
No. of samples collected: 1
No. of samples rejected: None Rationale: NA
Analyses Collected: PFAS - 537 Modified
Sheen (Yes) / No Odor Yes / (No)
Notes (not covered in Habitat Form):

Sediment collection:
circle if collected: (FD) MS/MSD
Sample ID: AOI 1-7-SD-01
Sample Time: 1130
Core penetration depth (inches): 12"
RPD depth (inches):
Number of cores collected: 4
Number of cores rejected: None Rationale: NA
Analyses Collected: PFAS - EPA 537 Modified
Sheen Yes / (No) Odor (Yes) / No
Notes and material description (include sediment type, texture color, layering, entrained debris, biota):
Organics. Roots and plant material dominate substrate, Black, Organic decomposition odor.

GrandLedge
AOI 1-7-SD-0-1
AOI-1-7-SD-01 DUP

Surface Water and Sediment Sample Collection Form ~~Camp Grayling, MTC, MI~~ Grand Ledge, MI

Date: 5/7/19
Time: 1235
Staff: S Kalemba

Loc ID: AOI I-8
Northing:
Easting:

Site Conditions

Water depth (ft): 0-1' Flowing: Yes / (No)
Channel width (ft): N/A Revetted Channel: Yes / (No) / N/A
Notes:

Samples taken from Retention Pond.

Field Data Meter Type: YSI Meter ID: 18C104594

Water Quality Parameters:	Middle of Water Column
Measurement Depth (ft)	0-1'
Temperature (deg. C)	9.6
Sp. Conductance (uS/cm)	390
Dissolved Oxygen (mg/L)	8.77
Dissolved Oxygen (% sat)	78.4
pH (S.U.)	7.57
Turbidity	23.9

Surface water sample collection:

Sample ID: AOI I-8-SW-0-1 circle if collected: FD / (MS/MSD)
Sample Time: 1245
Type of Sample (Grab) / Pump / Other
Sample depth (inches): 12"
No. of samples collected: 1
No. of samples rejected: None Rationale: NA
Analyses Collected: PFAS- EPA 537 Modified

Sheen (Yes) / No Odor Yes / (No)
Notes (not covered in Habitat Form):

Sediment collection:

Sample ID: AOI I-8-SD-0-1 circle if collected: FD / (MS/MSD)
Sample Time: 1320
Core penetration depth (inches): 12"
RPD depth (inches):
Number of cores collected: 6
Number of cores rejected: none Rationale: NA
Analyses Collected: PFAS- EPA 537 Modified

Sheen Yes / (No) Odor (Yes) / No
Notes and material description (include sediment type, texture color, layering, entrained debris, biota):

Organics, Plant material and roots dominate substrate, Black, organic decomposition odor.

Surface Water and Sediment Sample Collection Form
~~Cantonment/ Lake Margrethe, Camp Grayling JMTC, MI~~ Grand Ledge, MI

Date: 5/7/19
Time: 1340
Staff: S. Kralewska

Loc ID: AOI I-9
Northing:
Easting:

Site Conditions
Water depth (ft): 0-1'
Flowing: Yes / (No)
Channel width (ft): N/A
Revetted Channel: Yes / (No) / N/A
Notes:
Samples taken from Retention Pond.

Field Data Meter Type: YSI Meter ID: 18C104594

Water Quality Parameters:	Middle of Water Column
Measurement Depth (ft)	0-1'
Temperature (deg. C)	10.0
Sp. Conductance (uS/cm)	219
Dissolved Oxygen (mg/L)	9.76
Dissolved Oxygen (% sat)	87.2
pH (S.U.)	10.39
Turbidity	10.4

Surface water sample collection: circle if collected: FD MS/MSD
Sample ID: AOI I-9-SW-0-1
Sample Time: 1350
Type of Sample (Grab) / Pump / Other
Sample depth (inches): 12"
No. of samples collected: 1
No. of samples rejected: None Rationale: NA
Analyses Collected: PFAS- EPA 537 Modified

Sheen (Yes) / No Odor Yes / (No)
Notes (not covered in Habitat Form):

Sediment collection: circle if collected: FD MS/MSD
Sample ID: AOI I-9-SD-0-1
Sample Time: 1405
Core penetration depth (inches): 12"
RPD depth (inches):
Number of cores collected: 1
Number of cores rejected: None Rationale: NA
Analyses Collected: PFAS-EPA 537 Modified

Sheen Yes / (No) Odor ~~Yes~~ SA / (No)
Notes and material description (include sediment type, texture color, layering, entrained debris, biota):
Competent clay, high-plasticity, tan color, little sand, stiff.

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge AAFF	LocID: AOI 1-10	Date: ~~11/18~~ 11/15/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SA Checked By:
EQUIPMENT	Development Equipment: QED Power Pro - 11981		
	Water Level Indicator Type/ID#: WL-6450	Water Quality Meter Type: YSI Quatro -	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL INFO	Casing ID (inches) [a]: 2"	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: 22.00'
	Total Well Depth (FT BTOC) [d]: ~~99'~~ 97.70'	Water Column Thickness (FT) [d-c]: 75.70'	Well Volume (gallon) {[d-c] x b}: 12.11 x 3 = 36.34 gal
	Ground Condition of Well: Pad not set, Good condition of ~~well~~ new well		

CASING INFO												
Casing ID (inches) [a]:	1.5	**2.0**	2.2	3.0	**4.0**	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm): NA
Unit Casing Volume (gal/linear foot) [b]:	0.09	**0.16**	0.20	0.37	**0.65**	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm): NA

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	ORP mV DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment (initial DTW (ft) btoc)
11/15/19	1240 ~~1250~~ ST	Pump	22.00	0.0	0.59	12.3	1032	7.79	-454.9	>1100	—	~~Fe~~ SK 35.60
11/18/19	1113	pump	40.6	7.5	0.42	11.7	920	7.98	-307.0	571		21.37
	1128		48.3	10		13.0	945	7.88	-444.8	807		
1140	~~1135~~ ST		46.9	15		12.3	938	7.88	-557.6	>1100		Turbidity meter is faulty at higher reads
	1155		46.8	19		12.0	845	7.76	-472.0	548		
	1210		48.2	22.5		11.8	863	7.71	-488.9	608		
	1220		52.2	27.5		12.0	860	7.64	-499.2	645		
	1230		56.75	32.5		12.2	819	7.41	-473.9	765		
	1245		60.3	37.5		12.4	769	7.51	-451.6	169		
	1300		54.0	42.5		12.5	763	7.39	-424.6	584		
	1315		57.0	47.5		12.3	676	7.30	-400.5	297		
	1325		61.1	52.5		13.5	663	7.29	-430.6	484		
	1340		63.8	62.5		12.5	618.4	7.21	-350.5	29.2		
	1407		~~73.3~~	~~72.5~~		14.2	628.7	7.23	-237.8	54.8		
	1415		43.3	77.5		14.2	608.0	7.21	-187.4	84.2		
	1420		76.2	82.5		13.6	583.2	7.18	-242.7	45.5		
	1425	74.2	~~74.2~~ ST	84.0		13.4	580.4	7.21	-245.6	53.9		
	1430					13.4	584.2	7.18	-232.7	50.8		
	1435			87.5		13.4	557.2	7.27	-204.6	56.8		
	1440		63.8	90		13.3	592.3	7.05	-226.6	14.6		

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: **± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L**

AECOM

Monitoring Well Development Form

LOCATION	Site:	LocID:	Date:
	Project Name:	Project Number:	Recorded By: Checked By:

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	ORP mV DO ~~(mg/L)~~	Turbidity (NTU)	Sediment (mL/L)	Comment
	1445	pump	61.5	92.5		13.9	568.3	7.19	-280.0	14.6		
	1450		57.8	94		12.9	568.3	7.21	-193.2	9.66		

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: **± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L**

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-11	Date: 12/17/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Development Equipment: Proactive Tornado		
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI Pro Quatro	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL INFO	Casing ID (inches) [a]: 2.0"	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: 12.80'
	Total Well Depth (FT BTOC) [d]: 40.00'	Water Column Thickness (FT) [d-c]: 27.20'	Well Volume (gallon) {[d-c] x b}: 4.44gal x 3 = 13.40gal
	Ground Condition of Well: Pad set, site restoration to occur in Spring 2020.		

CASING INFO												
Casing ID (inches) [a]:	1.5	**2.0**	2.2	3.0	**4.0**	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm):	NA
Unit Casing Volume (gal/linear foot) [b]:	0.09	**0.16**	0.20	0.37	**0.65**	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm):	NA

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment
12/17/19	1405	pump	12.80	0.0	12	11.8	1.07	6.79	1.56	>1100	—	Surge
	1415		13.72	31.70		11.2	1.01	7.01	1.70	714		Surge
	1425			63.40		11.1	1.01	6.97	2.03	>1100		Surge
	1430			79.25		11.1	1.00	6.91	2.00	704		
	1435			95.10		11.0	1.00	6.88	1.91	309		
	1440			110.95		11.0	0.99	6.85	1.60	112		
	1445			126.8		11.0	0.99	6.85	1.42	50.1		
	1450			142.65		11.0	0.99	6.84	1.31	20.9		
	1455			158.5		11.0	0.99	6.84	1.40	14.6		
	1500			174.30		11.0	0.99	6.84	1.35	12.1		

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: **± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L**

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI-12	Date: 12/18/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Development Equipment: Proactive Tornado		
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI Quatro	
	PID Type/ID#: N/A	Equipment Decon: Liquinox / DI H2O	
WELL INFO	Casing ID (inches) [a]: 2"	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: 15.96
	Total Well Depth (FT BTOC) [d]: 47'	Water Column Thickness (FT) [d-c]: 31.04	Well Volume (gallon) {[d-c] x b}: 5.06 x 3 = 15.18 gal
	Ground Condition of Well: pad set, site restoration to be completed Spring 2020.		

CASING INFO												
Casing ID (inches) [a]:	1.5	**2.0**	2.2	3.0	**4.0**	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm):	N/A
Unit Casing Volume (gal/linear foot) [b]:	0.09	**0.16**	0.20	0.37	**0.65**	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm):	N/A

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment
12/18/19	0930	pump	21.41	0.0	~~0.5~~	11.4	0.81	7.34	3.41	>1100	—	Surge
	0940		26.90	30.38	11.50	11.2	0.80	7.30	2.10	>1100		Surge
	0950		30.49	60.76	11.50	11.0	0.79	7.14	1.90	>1100		Surge
	1000		37.81	91.14		11.1	0.79	7.10	1.81	241		
	1010		36.88	121.52		11.1	0.80	7.19	2.10	89.6		
	1020		34.75	151.9		11.0	0.79	7.24	2.41	42.6		
	1030		36.32	182.28		11.0	0.80	7.28	2.01	23.7		
	1040		37.10	212.66		11.0	0.80	7.30	1.82	18.4		
	1050		37.41	243.04		11.1	0.81	7.31	1.64	14.9		
	1100		36.99	273.42		11.1	0.81	7.31	1.55	10.4		

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: **± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L**

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-13	Date: 12/17/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552122	Recorded By: SK Checked By:
EQUIPMENT	Development Equipment: Proactive Tornado		
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI	
	PID Type/ID#: N/A	Equipment Decon: Liquinox / DI H_2O	
WELL INFO	Casing ID (inches) [a]: 2.0"	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: 19.55
	Total Well Depth (FT BTOC) [d]: 52.00'	Water Column Thickness (FT) [d-c]: 32.45	Well Volume (gallon) {[d-c] x b}: 5.30 x 3 = 15.87 gal
	Ground Condition of Well: Pad set, in asphalt.		

CASING INFO												
Casing ID (inches) [a]:	1.5	**2.0**	2.2	3.0	**4.0**	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm):	N/A
Unit Casing Volume (gal/linear foot) [b]:	0.09	**0.16**	0.20	0.37	**0.65**	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm):	N/A

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment
12/17/19	1535	pump	19.55	0.0	~~1~~ 1.1	11.8	0.79	7.30	2.70	>1100	—	Surge
	1545		20.36	29.06	1.1	10.9	0.78	7.30	1.23	>1100		Surge
	1555		20.32	58.12	1.1	11.3	0.77	7.10	2.05	>1100		Surge
	1605		"	87.18		11.1	0.78	7.33	0.99	641		
	1620		"	130.77		11.2	0.78	7.30	1.02	201		
	1630		"	159.83		11.1	0.77	7.25	1.49	98.7		
	1635		"	174.36		11.1	0.77	7.30	2.01	41.3		
	1640		"	188.89		11.3	0.78	7.35	1.50	18.7		
	1645		"	203.42		11.2	0.77	7.38	1.20	11.9		
	1650		"	217.95		11.1	0.77	7.34	1.04	9.43		

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: ± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge MI	LocID: AOI-14	Date: 12/5/19
	Project Name: Grand Ledge SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Development Equipment: Proactive Tornado		
	Water Level Indicator Type/ID#: WL-5385	Water Quality Meter Type: YSI / Turbidity Meter	
	PID Type/ID#: N/A	Equipment Decon: Liquinox / DI H2O	
WELL INFO	Casing ID (inches) [a]: 2.00"	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: 35.86'
	Total Well Depth (FT BTOC) [d]: 60.00'	Water Column Thickness (FT) [d-c]: 24.14	Well Volume (gallon) {[d-c] x b}: 3.94 x3 = 11.8 gal
	Ground Condition of Well: Pad not set		

CASING INFO												
Casing ID (inches) [a]:	1.5	(2.0)	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm): N/A
Unit Casing Volume (gal/linear foot) [b]:	0.09	(0.16)	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm): N/A

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment
12/5/19	1415	Pump	35.86	0.0	6.60	12.50	0.98	7.57	2.83	>1100	—	Surge
	1420		38.62	8.72		12.3	0.98	7.46	1.67	1000	—	Surge
	1425		40.21	17.44		12.2	0.98	7.42	1.21	431	—	Surge
	1430		37.30	26.16		12.0	0.96	7.47	1.00	999	—	
	1445		36.48	52.32		12.1	0.95	7.45	1.15	400	—	
	1500		36.01	61.04		12.2	0.95	7.42	1.38	97.1	—	
	1515		35.92	87.20		12.1	0.95	7.44	1.14	41.6	—	
	1525		34.91	104.64		12.2	0.94	7.40	1.04	19.7	—	
	1530		34.70	113.36		12.2	0.94	7.41	1.00	11.6	—	
	1535		34.55	122.08		12.1	0.94	7.42	1.12	16.9	—	

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: ± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 15	Date: 12/4/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Development Equipment: Proactive SS Monsoon		
	Water Level Indicator Type/ID#: WL-5385	Water Quality Meter Type: YSI / Turbidity meter	
	PID Type/ID#: N/A	Equipment Decon: Liquinox / DI H2O	
WELL INFO	Casing ID (inches) [a]: 2.00"	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: ~~27.05~~ 27.05'
	Total Well Depth (FT BTOC) [d]: 75.00'	Water Column Thickness (FT) [d-c]: 47.95	Well Volume (gallon) {[d-c] x b}: ~~7.82~~
	Ground Condition of Well: Pad not set.		7.82 gal x 3 = 23.45 gallons

CASING INFO												
Casing ID (inches) [a]:	1.5	**2.0**	2.2	3.0	**4.0**	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm):	N/A
Unit Casing Volume (gal/linear foot) [b]:	0.09	**0.16**	0.20	0.37	**0.65**	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm):	N/A

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment
12/4/19	0845	Pump	27.05'	0.0	~~0.75~~ 4.50	13.5	0.97	6.35	1.26	>1100	—	
	0900		58.00	5.0g		13.3	0.87	7.32	1.21	>1100	—	Surge
	0915		55.02	7.5g		11.5	0.81	7.46	1.26	124	—	
	0920		54.58	10.0g		12.4	0.79	7.42	0.65	>1100	—	Surge
	1040 ~~0955~~		62.00	12.5g		12.5	0.83	7.42	1.81	>1100	—	Blew fuse, mob to get replacement
	1055 ~~0940~~		70.04	15.0g		11.8	0.82	7.54	2.93	436	—	Surge
	1110 ~~1000~~		74.09	17.5g		11.4	0.82	7.57	1.91	366	—	Well ran dry, let recharge for 5min.
	1125 ~~1010~~		62.14	20.0g		10.8	0.81	7.50	2.03	119	—	Surge
	1130 ~~1050~~		60.22	22.5g		10.9	0.82	7.59	1.95	51.7	—	
	1140 ~~1055~~		61.41	25.0g		10.8	0.83	7.50	1.89	14.6	—	
	1200		61.50	27.5g		10.9	0.82	7.52	1.85	9.90	—	
	1205		61.52	30.0g		10.8	0.81	7.51	1.90	10.12	—	
	1210		61.50	32.5g		10.8	0.81	7.50	2.00	8.14	—	

DEVELOPMENT CRITERIA: Measurements: every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: ± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L

AECOM

Monitoring Well Development Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 2-4	Date: 12/4/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552172	Recorded By: SM Checked By:
EQUIPMENT	Development Equipment: SS Monsoon		
	Water Level Indicator Type/ID#: WL-5385	Water Quality Meter Type: YSI / Turbidity meter	
	PID Type/ID#: N/A	Equipment Decon: Liquinox / DI H2O	
WELL INFO	Casing ID (inches) [a]: 2.00" SM	Unit Casing Volume (gallon/linear foot) [b]: 0.163	Initial Depth to Water (FT BTOC) [c]: 9.40'
	Total Well Depth (FT BTOC) [d]: ~~40.00'~~ SM 35.00'	Water Column Thickness (FT) [d-c]: 25.60'	Well Volume (gallon) {[d-c] x b}: 4.13 gal x3 = 12.52 gal
	Ground Condition of Well: Pad not set yet.		

CASING INFO												
Casing ID (inches) [a]:	1.5	(2.0)	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0	Ambient PID (ppm):	N/A
Unit Casing Volume (gal/linear foot) [b]:	0.09	(0.16)	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6	Well Head PID (ppm):	N/A

Date (MM/DD/YY)	Time (24 hr)	Method (pump, surge, bail)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Sediment (mL/L)	Comment
12/4/19	1305	Pump	9.40'	0.0	4.50	14.0	1.02	7.58	2.38	>1100	—	
	1315		9.80'	11.2		13.7	1.00	7.52	2.20	900	—	Surge
	1325		9.55'	22.4		13.2	1.01	7.50	2.81	>1100	—	Surge
	~~1335~~ SM			33.6							—	Surge SM
12/5/19	~~1045~~ 1255	Pump	9.69	0.0	10.2	13.1	1.68	7.30	0.88	>1100	—	1255 start time
	1300		10.45	13.48		13.1	1.82	7.41	1.16	>1100	—	Surge
	1310		10.56	40.43		13.0	1.74	7.49	1.08	216	—	Surge
	1315		10.62	53.90		13.1	1.76	7.52	1.26	44.6	—	Surge
	1320		10.64	67.37		13.0	1.77	7.50	1.10	21.4	—	
	1325		10.69	80.86		13.0	1.77	7.50	1.31	16.8	—	

DEVELOPMENT CRITERIA: **Measurements:** every 5 minutes; Development is considered complete if water added during boring and well construction is removed and parameters are within the following criteria for 3 consecutive readings: ± 1°C, ± 5% Conductivity; ± 0.1 pH; Turbidity ± 10 NTU for 30 minutes or < 50 NTU and sediment <0.75 mL/L

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge AASF	LocID: AOI 1-10	Date: 11/19/19
	Project Name: ARNG PFAS	Project Number: 60552192	Recorded By: ST Checked By:
EQUIPMENT	Sampling Equipment - Pump: 3	Controller: ~~4392~~ ST	Compressor: 3524
	Water Level Indicator Type/ID#: 6450	Water Quality Meter Type: Sonde ID:	Handset ID: 4392
	PID Type/ID#:	Equipment Decon:	
WELL & SAMPLING INFO	Description:	Screen Interval (BTOC):	Initial Depth to Water (BTOC): / Ambient PID (ppm):
	Historic Pump Settings:		Pump Inlet Depth (BTOC): / Well Head PID (ppm):
	Condition of Well/Comments:		
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
11/19/19	1445	22.30		0.140	10.4	457.2	3.99	7.37	-107.3	652	20/10	42	
	1450	23.65		0.140	10.8	449.1	7.02	7.38	-60.0	521	20/10	42	
	1455	23.70		0.140	10.8	449.5	8.09	7.37	-56.7	386	20/10	42	
	1500	23.70		0.140	10.1	446.8	8.09	7.36	-55.7	336	20/10	42	
	1505	23.75		0.140	10.2	446.8	7.54	7.35	-73.2	291	20/10	42	
	1510	23.85		0.140	—	—	—	—	—	262	20/10	42	YSI battery changed
	1515	24.00		0.140	11.0	449.4	5.74	7.35	-101.7	226	20/10	42	
	1520	24.20		0.140	11.1	447.5	5.53	7.35	-101.1	183	20/10	42	
	1525	24.30		0.140	11.0	452.7	6.25	7.34	-100.3	193	20/10	42	
	1530	24.35		0.140	10.9	452.0	5.81	7.34	-107.4	156	20/10	42	
	1535	24.50		0.140	10.9	451.3	5.13	7.34	-112.1	143	20/10	42	

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI 1-10-GW-89 @1040 AOI 1-10-GW-89-D AOI 1-10-GW-89-MS AOI 1-10-GW-89-MSD	125 mL poly x2	None	PFAS EPA Method 537 Mod

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Lodge AASF	LocID: AOI 1-10	Date: 11/19/19
	Project Name: ARNG PFAS	Project Number: 60552172	Recorded By: ST Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
11/19/19	1540	24.50		0.140	10.8	450.6	4.95	7.35	-119.1	131	20/10	42	
	1545	24.50		0.140	11.0	451.8	4.90	7.34	-128.6	128	20/10	42	
	1550	24.50		0.140	10.9	466.5	3.77	7.34	-136.6	128	20/10	42	
	1555	24.50		0.140	10.8	456.2	3.50	7.34	-138.0	96	20/10	42	
	1600	24.50		0.140	10.9	455.4	3.23	7.35	-141.0	98.1	20/10	42	
	1605	24.50		0.140	10.9	455.4	3.15	7.34	-146.2	87.0	20/10	42	
	1610	24.50	5 gal	0.140	10.8	454.3	3.11	7.35	-149.6	83.4	20/10	42	
	1615	24.50		0.140	10.8	455.0	3.10	7.35	-153.0	80.9	20/10	42	
	1620	24.50		0.140	10.7	453.9	3.03	7.35	-157.8	92.6	20/10	42	
	1625	24.50		0.140	10.9	454.1	2.90	7.35	-160.1	92.8	20/10	42	
	1630	24.45		0.140	10.8	452.4	3.04	7.36	-163.5	88.3	20/10	42	
	1635	24.45		0.140	10.7	455.9	3.17	7.36	-165.4	76.5	20/10	42	
				SAMPLE									

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; ± 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI I-11	Date: 12/18/19
	Project Name: Grand Ledge AAST SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geocontrol Bladder	Controller: NA	Compressor: 5286
	Water Level Indicator Type/ID#: GWL-1352	Water Quality Meter Type: YSI Sonde ID: 19C100253	Handset ID: 6542
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL & SAMPLING INFO	Description: 2" Monitoring Well; Screen Interval (BTOC): 30-40'	Initial Depth to Water (BTOC): 12.95	Ambient PID (ppm): NA
	Historic Pump Settings: NA	Pump Inlet Depth (BTOC): 35.00'	Well Head PID (ppm): NA
	Condition of Well/Comments:		
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/18/19	1420	12.97	0.0	0.2	9.3	1.00	5.02	7.25	-73.5	>1100	9/7	29	Shaker Test = —
	1425	12.99	1.0		9.4	1.00	2.01	7.26	-72.1	1010			
	1430	13.01	2.0		9.4	1.00	0.38	7.27	-70.2	773			
	1435	13.00	3.0		9.4	1.00	0.36	7.26	-70.3	425			
	1440	12.99	4.0		9.4	1.00	0.35	7.26	-70.4	161			
	1445		5.0		9.6	1.01	0.30	7.25	-70.9	84.6			
	1450		6.0		9.7	1.01	0.29	7.25	-72.3	41.2			
	1455		7.0		9.7	1.01	0.35	7.24	-73.9	32.4			
	1500		8.0		9.7	1.01	0.30	7.24	-72.9	30.6			
	1505		9.0		9.8	1.01	0.33	7.24	-74.1	31.8			
	1510		10.0		9.8	1.01	0.31	7.24	-75.0	32.2			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI I-11-GW-3~~0~~35 collected @1515 2.64gal SK	2- 125mL HDPE	None	PFAS by LCMSMS Table B-15.

Monitoring Well Sample Collection Form

AECOM

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-12	Date: 12/20/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geocontrol Bladder	Controller: NA	Compressor: 5286
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI Sonde ID: 19C100253	Handset ID: 6542
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL & SAMPLING INFO	Description: 2" Monitoring Well	Screen Interval (BTOC): 37-47	Initial Depth to Water (BTOC): 16.63' Ambient PID (ppm): NA
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 42.00' Well Head PID (ppm): NA
	Condition of Well/Comments:		
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/20/19	0845	17.24	0.0	0.2	11.9	1.10	0.45	6.93	-21.3	60.1	7/8	35	Shaker Test =
	0850	17.24	1.0		11.9	1.11	0.32	6.99	4.51	31.6			
	0855		2.0		11.9	1.12	0.29	7.02	35.1	14.5			
	0900		3.0		11.9	1.12	0.25	7.08	61.0	7.51			
	0905		4.0		11.8	1.12	0.20	7.09	30.2	6.37			
	0910		5.0		11.8	1.12	0.21	7.09	4.02	5.40			
	0915		6.0		11.8	1.12	0.24	7.09	-49.8	6.52			
	0920		7.0		11.6	1.12	0.26	7.10	-53.5	7.02			
	0925		8.0		11.7	1.12	0.24	7.11	-53.0	5.49			
	0930		9.0		11.7	1.12	0.23	7.12	-52.4	6.14			
	0935		10.0		11.8	1.12	0.25	7.12	-54.1	5.18			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3-5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

2.64 gal

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI 1-12-GW-42 collected @ 0940	2-125mL HDPE	None	PFAS by LC/MS/MS Table B-15.

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-13	Date: 12/19/19
	Project Name: Grand Ledge AAFES I	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geocontrol Bladder	Controller: NA	Compressor: 5286
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI Sonde ID: 19C100253	Handset ID: 6542
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL & SAMPLING INFO	Description: 2" Monitoring Well	Screen Interval (BTOC): 42-52	Initial Depth to Water (BTOC): 19.78 Ambient PID (ppm): NA
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 47.00 Well Head PID (ppm): NA
	Condition of Well/Comments:		
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/19/19	1515	19.78	0.0	0.2	9.7	0.74	5.31	7.36	-29.7	255	7/8	35	Shaker Test = —
	1520	19.79	1.0		10.5	0.78	0.29	7.30	-93.3	100			
	1525	19.79	2.0		10.5	0.78	0.26	7.30	-101.2	60.4			
	1530		3.0		10.5	0.79	0.25	7.30	-104.9	19.7			
	1535		4.0		10.5	0.79	0.25	7.30	-108.1	12.6			
	1540		5.0		10.6	0.79	0.24	7.30	-114.7	9.14			
	1545		6.0		10.5	0.79	0.21	7.30	-117.2	8.01			
	1550		7.0		10.4	0.78	0.23	7.30	-120.1	7.49			
	1555		8.0		10.3	0.78	0.24	7.30	-122.6	8.23			
	1600		9.0		10.2	0.78	0.22	7.30	-123.4	9.01			
	1605		10.0		10.2	0.79	0.23	7.31	-126.3	9.54			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3-5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

2.64gal

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI 1-13-GW-47 collected @ 1610	2-125mL HDPE	None	PFAS by LCMSMS Table B-15.

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI I-14		Date: 12/19/19	
	Project Name: Grand Ledge AASF SI	Project Number: 60552172		Recorded By: SK	Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geocontrol Bladder		Controller: NA	Compressor: 5286	
	Water Level Indicator Type/ID#: WL-352	Water Quality Meter Type: YSI	Sonde ID: 19C100253	Handset ID: 6542	
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O			
WELL & SAMPLING INFO	Description: 2" Monitoring Well	Screen Interval (BTOC): 56-60'	Initial Depth to Water (BTOC): 35.98	Ambient PID (ppm): NA	
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 55.00'	Well Head PID (ppm): NA	
	Condition of Well/Comments:				
	NOTE:				

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/19/19	1130	36.02	0.0	0.2	10.6	0.78	1.30	8.06	-163.0	71.00	14/11	41	Shoreline Test =
	1135	36.04	1.0		10.7	0.80	0.84	7.91	-170.9	54.3			
	1140	36.00	2.0		10.8	0.82	0.34	7.74	-181.4	22.2			
	1145	35.99	3.0		10.8	0.84	0.13	7.63	-191.2	87.6			
	1150	35.99	4.0		10.7	0.86	0.10	7.64	-200.2	100	5/1		
	1155		5.0		10.6	0.87	0.13	7.64	-208.6	121.			
	1200		6.0		10.6	0.86	0.11	7.60	-206.5	99.6			
	1205		7.0		10.6	0.86	0.13	7.60	-207.0	80.1			
	1210		8.0		10.6	0.86	0.15	7.60	-207.5	84.6			
	1215		9.0		10.6	0.86	0.14	7.61	-210.1	76.1			
	1220		10.0		10.6	0.86	0.15	7.61	-210.6	70.8			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI I-14-GW-55 Collected @ 1250	2-125mL HDPE	None	PFAS by Lemsms Table B-15.

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI-14	Date: 12/19/19
	Project Name: Grand Ledge AASF SI	Project Number: 60552172	Recorded By: SK Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/19/19	1225	35.99	11.0	0.2	10.6	0.83	0.17	7.61	-210.1	74.6	14/11	41	Shaker Test = -
	1230		12.0		10.7	0.84	0.18	7.62	-212.1	79.2			
	1235		13.0		10.7	0.84	0.16	7.62	-214.0	82.6			
	1240		14.0		10.6	0.84	0.13	7.62	-213.2	84.9			
	1245		15.0		10.7	0.84	0.15	7.62	-211.4	85.5			
			=3.96gal										

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 1-15	Date: 12/19/19
	Project Name: Grand Ledge AFFF II	Project Number: 60552132	Recorded By: SK Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geocontrol Bladder	Controller: NA	Compressor: 5256
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI Sonde ID: 19C100253	Handset ID: 6542
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H_2O	
WELL & SAMPLING INFO	Description: 2" Monitoring well	Screen Interval (BTOC): 60-75'	Initial Depth to Water (BTOC): 9.91 JK	Ambient PID (ppm): NA
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 67.50'	Well Head PID (ppm): NA
	Condition of Well/Comments:			
	NOTE:		DTW: 26.99' BTOC.	

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/19/19	0940	26.99	0.0	0.2	6.2	0.661	1.34	7.25	-0.6	>1100	14/11	42	Shaker Test = —
	0945	27.61	1.0		8.6	0.684	2.86	7.71	-80.7	581			
	0950	27.69	2.0		8.6	0.688	2.78	7.69	-96.4	130			
	0955	27.85	3.0		9.1	0.688	2.84	7.67	-104.5	101			
	1000	27.83	4.0		9.0	0.691	2.65	7.67	-116.0	70.2			
	1005	27.80	5.0		9.0	0.691	2.63	7.66	-116.9	50.1			
	1010	"	6.0		9.1	0.692	2.60	7.67	-117.2	45.2			
	1015	"	7.0		9.1	0.692	2.62	7.66	-117.8	44.0			
	1020	"	8.0		9.1	0.692	2.64	7.66	-118.0	42.8			
	1025	"	9.0		9.2	0.691	2.60	7.65	-119.0	42.2			
	1030	"	10.0		9.1	0.692	2.61	7.65	-118.7	41.9			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

* 2.64 gal

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI 1-15-GW-67.50' Collected @ 1035	2-125mL HDPE	None	PFAs by LC/MS/MS Table B-15

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Grand Ledge, MI	LocID: AOI 2-4	Date: 12/18/19
	Project Name: Grand Ledge NASF SI	Project Number: 60552172	Recorded By: SK Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geocontrol Bladder	Controller: NA	Compressor: 5286
	Water Level Indicator Type/ID#: WL-1352	Water Quality Meter Type: YSI Sonde ID: 19C100253	Handset ID: 6542
	PID Type/ID#: NA	Equipment Decon: Liquinox / DI H2O	
WELL & SAMPLING INFO	Description: 2" Monitoring Well	Screen Interval (BTOC): ~~30-40~~ SK 25-35'	Initial Depth to Water (BTOC): 9.92
	Historic Pump Settings: NA	Pump Inlet Depth (BTOC): 30.00'	Ambient PID (ppm): NA
	Condition of Well/Comments:		Well Head PID (ppm): NA
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
12/18/19	1245	9.95	0.0	0.2	10.6	1.70	1.02	7.41	71.4	744	7/6	25	shaker test = —
	1250	9.93	1.0		10.4	1.72	1.13	7.41	7.4	231			"
	1255	9.90	2.0		10.9	1.70	3.68	7.43	-36.7	64.5			"
	1300	"	3.0		10.9	1.70	0.64	7.43	-62.6	45.4			"
	1305	"	4.0		11.5	1.71	0.77	7.46	-75.2	34.5			"
	1310	"	5.0		11.5	1.71	0.73	7.46	-79.8	12.8			
	1315	"	6.0		11.5	1.71	0.64	7.47	-84.9	10.1			
	1320	"	7.0		11.6	1.71	0.69	7.48	-90.2	8.71			
	1325	"	8.0		11.6	1.71	0.63	7.48	-93.2	9.09			
	1330	"	9.0		11.5	1.71	0.60	7.48	-95.4	8.80			
	1335	"	10.0		11.5	1.71	0.62	7.48	-96.2	8.77			

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI 2-4-GW-~~25~~ 35 collected @ 1340 30	2-125mL HDPE	None	PFAS by LCMSMS Table B-15.

~~2.64~~ gal SK