WISCONSIN AIR NATIONAL GUARD
HEADQUARTERS 115TH FIGHTER WING (ACC) (ANG)
3110 MITCHELL STREET
MADISON WISCONSIN 53704-2529

24 May 2024

MEMORANDUM FOR WISCONSIN DEPARTMENT OF NATURAL RESOURCES

FROM: 115 CES/CC

SUBJECT: XGFG219012 Construct Munitions M&I Facility (Formerly XGFG182017), Truax Field. Materials Management Plan Addendum – BRRTS #: 02-13-585319

1. Pursuant to the 21 July 2021 approved materials management plan, this serves as a project specific addendum for the subject project. On the attached sampling site report, the sample site is referred to as XGFG182017. Please note that XGFG219012 and XGFG182017 are the same project site. The project number was only changed by the National Guard Bureau to reflect funding sources. No aspects of the project have changed since sampling was completed.

2. Attachment 1 details PFAS and VOC sampling results for the subject project for soil and water. Only Sample Points 2 &3 (shallow and deep), and Sample Point 4 (shallow) of the borings within the sampling area contained detectable levels of PFAS compromised soil without requiring the laboratory to issue a "J" and/or "Q" qualifier to estimate a value. There were no VOC impacted soils found.

		Boring #/Depth (concentration in mg/kg, ppm)								
Compound	CAS#	01 AA-MW-1 1'-1.5'	01-AA-MW-1 2'-2.5'	01-AA-MW-2 1'-1.5'	01-AA-MW-2 1'-1.5'D	01-AA-MW-2 2'-2.5'	01-AA-MW-3 1'-2'	01-AA-MW-3 2'-3'	01-AA-MW-4 1'-1.5'	01-AA-MW-4 2'-2.5'
PFBA	375-22-4	0.000492 J	ND	ND	0.000439 J	ND	ND	ND	0.00054	ND
PFPeA	2706-90-3	ND	ND	ND	0.000554	ND	ND	ND	ND	ND
PFHxA	307-24-4	ND	ND	0.000311 J	0.000659	0.000393 J	ND	ND	ND	ND
PFHpA	375-85-9	ND	ND	ND	0.000859	ND	ND	ND	ND	ND
PFHxS	355-46-4	ND	ND	0.000632	0.000974	0.000586	ND	ND	ND	ND
PFOA	335-67-1	ND	ND	ND	0.000773	ND	ND	0.000527	ND	ND
PFOS	1763-23-1	ND	ND	0.00264 Q	0.00527 Q	0.00147 Q	0.00425	0.00443	0.000506 Q	ND

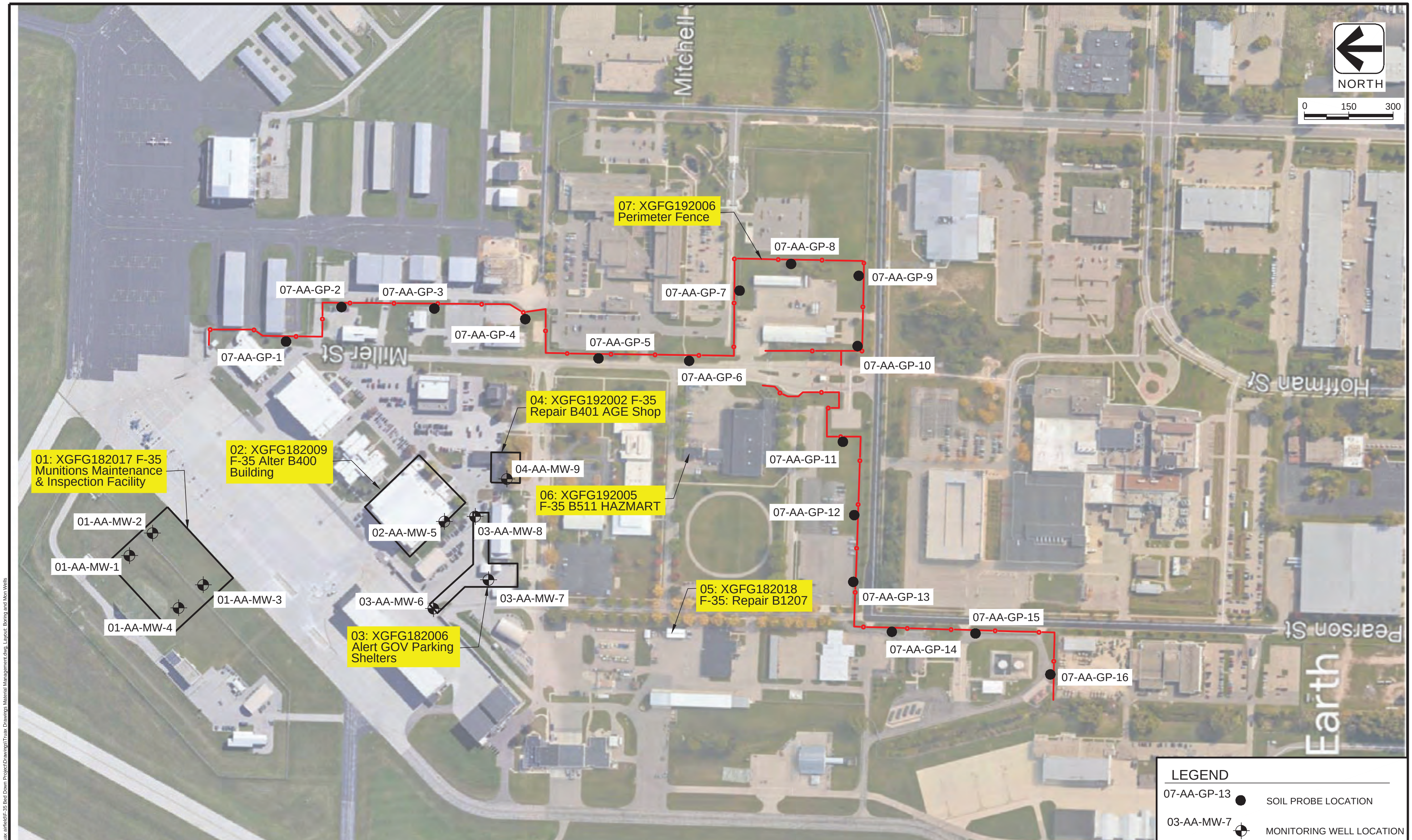
3. As standards for contamination do not exist for the State of Wisconsin with respect to PFAS containing materials, the United States Air Force screening levels is being used as a reference point for management. The United States Air Force Screening levels for PFAS compounds in soil/sediment for PFOS and PFOA at 130 µg/Kg. Sample Point 01-AA-MW-3 was the only location with a result greater than 1 µg/Kg at 4.25 µg/Kg (shallow) and 4.43 µg/Kg (deep) for PFOS. All other sample point results were a "qualified" result (estimations used for their quantity given the result was at the edge of detection), and were less than 1 µg/Kg. Keeping with previously approved materials management plans for the beddown of the F-35, namely the XGFG182005 F-35 Repair Apron, the same management techniques will be used. For materials removed within a 50'x50' area associated with Sample Point 01-AA-MW-3 (shallow and deep), material from ground surface down to bottom of foundations will be managed as compromised soil in accordance with the 21 July 2021 letter, BRRTS #: 02-13-585319. All other materials outside of the red box will be disposed of at the contractor's discretion. The sample boundaries represent the entirety of the construction area.

4. If you have any additional questions, please feel free to contact me at 608-286-0010 or michael.dunlap@us.af.mil at any time. Thank you in advance for your review of this material management plan.

DUNLAP.MICHAEL.JOHN.1138452693 Digitally signed by DUNLAP.MICHAEL.JOHN.1138452693 Date: 2024.05.24 13:24:45 -05'00'

MICHAEL J. DUNLAP, Lt Col, WI ANG
Commander, 115th Civil Engineer Squadron
Base Civil Engineer, 115th Fighter Wing

Attachment:
1. Construct Munitions M&I Facility Site Sampling Plan & Report Results
2. Construct Munitions M&I Facility Site Plan



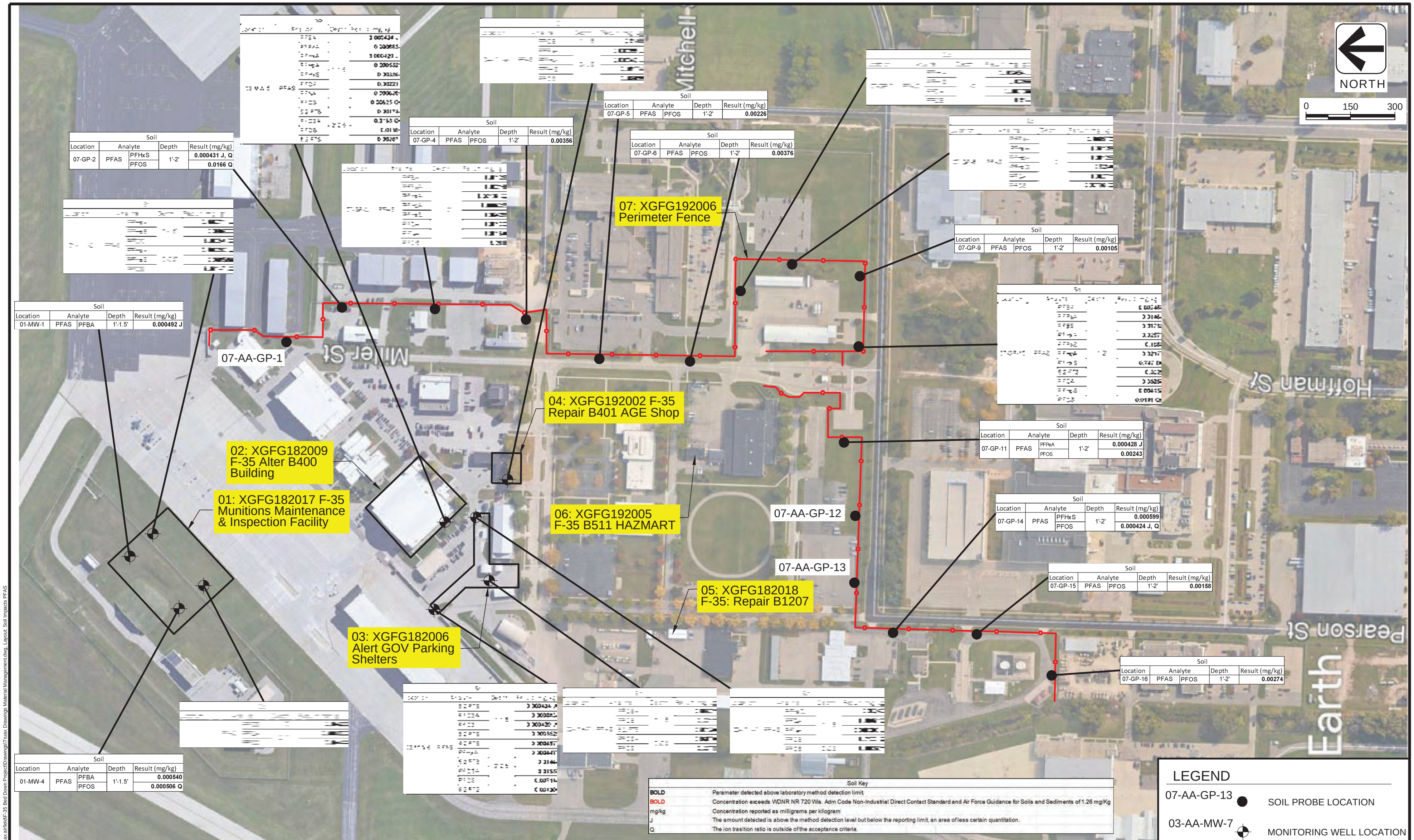
DES BY J. STEINER		NO	DATE	REVISION	
DR BY T. SHUPERT	PROJ NO	NO	DATE	REVISION	
CHK BY J. STEINER	DATE MAY 2021				

F-35 Bed Down Project
Wisconsin Air National Guard - Truax Field
Madison, Wisconsin

AYRES
Eau Claire, WI 54701
715.834.3161

BORING AND MONITORING WELL LOCATIONS

SHEET NO. 2



Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-2	PFAS	PFHxS	1'-2'	0.000431 J, Q
		PFOS		0.0166 Q

Soil				
Location	Analyte		Depth	Result (mg/kg)
01-MW-1	PFAS	PFBA	1'-1.5'	0.000492 J

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-4	PFAS	PFOS	1'-2'	0.00356

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-5	PFAS	PFOS	1'-2'	0.00226

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-6	PFAS	PFOS	1'-2'	0.00376

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-9	PFAS	PFOS	1'-2'	0.00105

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-11	PFAS	PFPeA	1'-2'	0.000428 J
		PFOS		0.00243

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-14	PFAS	PFHxS	1'-2'	0.000599
		PFOS		0.000424 J, Q

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-15	PFAS	PFOS	1'-2'	0.00158

Soil				
Location	Analyte		Depth	Result (mg/kg)
07-GP-16	PFAS	PFOS	1'-2'	0.00274

Soil				
Location	Analyte		Depth	Result (mg/kg)
01-MW-4	PFAS	PFBA	1'-1.5'	0.000540
		PFOS		0.000506 Q

Soil Key	
BOLD	Parameter detected above laboratory method detection limit
BOLD	Concentration exceeds WDNR NR 720 Wis. Adm Code Non-Industrial Direct Contact Standard and Air Force Guidance for Soils and Sediments of 1.26 mg/Kg
mg/kg	Concentration reported as milligrams per kilogram
J	The amount detected is above the method detection level but below the reporting limit, an area of less certain quantitation.
Q	The ion trasition ratio is outside of the acceptance criteria.

AA-Standard.stb
5/10/2021
I:\51\CAD\Env. sites\Truax airfield\F-35 Bed Down Project\Drawings\Truax Drawings Material Management.dwg, Layout: Soil Impacts PFAS

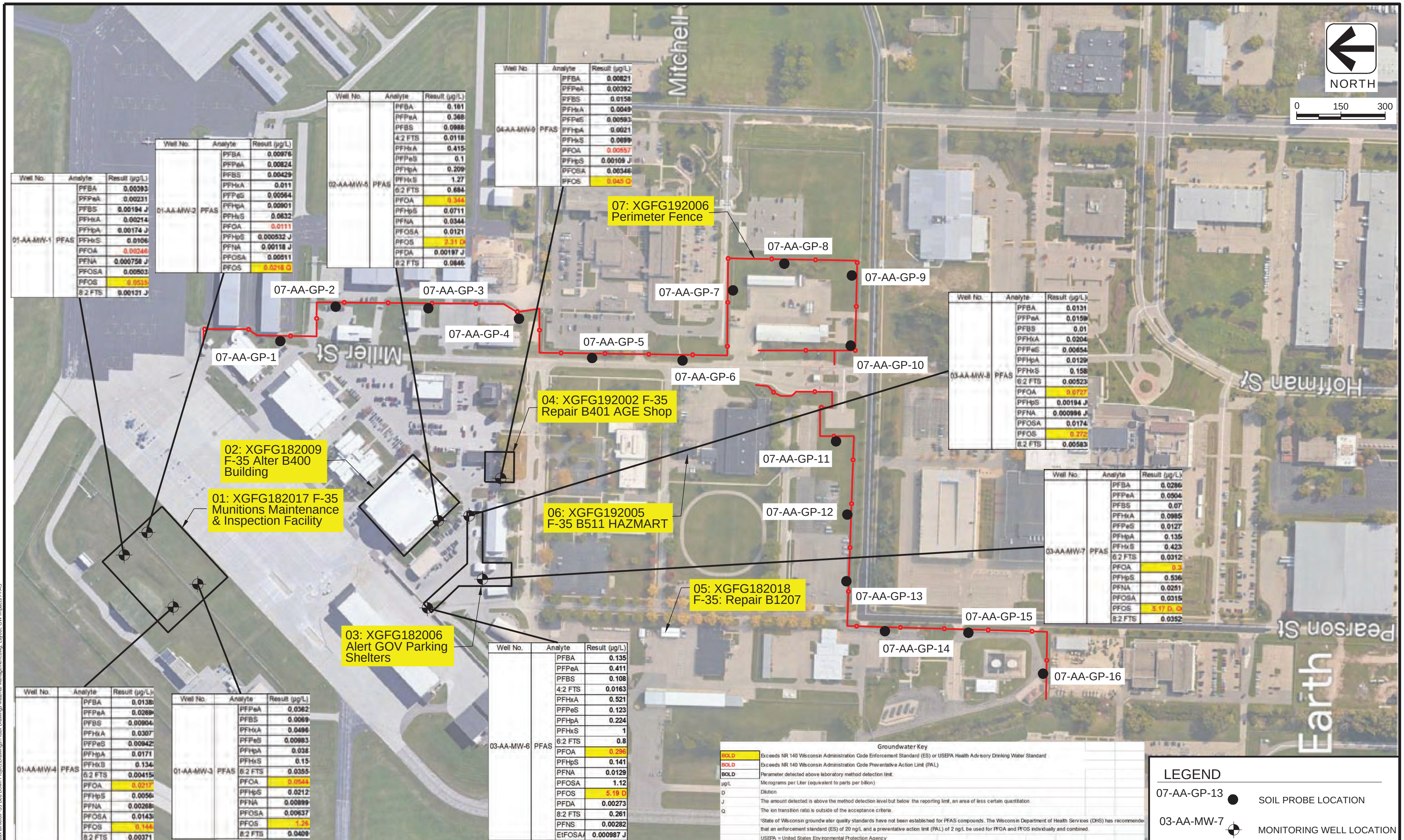
DES BY J. STEINER							
DR BY T. SHUPERT	PROJ NO						
CHK BY J. STEINER	DATE MAY 2021	NO	DATE	REVISION	NO	DATE	REVISION

F-35 Bed Down Project
Wisconsin Air National Guard - Truax Field
Madison, Wisconsin

AYRES
Eau Claire, WI 54701
715.834.3161

SOIL IMPACTS - PFAS

SHEET NO. 3



Well No.		Analyte	Result (µg/L)
01-AA-MW-1	PFAS	PFBA	0.00393
		PFPeA	0.00231
		PFBS	0.00194 J
		PFHxA	0.00214
		PFHpA	0.00174 J
		PFHxS	0.0106
		PFOA	0.00246
		PFNA	0.000758 J
		PFOSA	0.00503
		PFOS	0.0535
		8:2 FTS	0.00131 J

Well No.		Analyte	Result (µg/L)
01-AA-MW-2	PFAS	PFBA	0.00976
		PFPeA	0.00824
		PFBS	0.00429
		PFHxA	0.011
		PFPeS	0.00564
		PFHpA	0.00901
		PFHxS	0.0632
		PFOA	0.0111
		PFHpS	0.000532 J
		PFNA	0.00118 J
		PFOSA	0.00511
		PFOS	0.0218 Q

Well No.		Analyte	Result (µg/L)
02-AA-MW-5	PFAS	PFBA	0.181
		PFPeA	0.368
		PFBS	0.0988
		4:2 FTS	0.0118
		PFHxA	0.415
		PFPeS	0.1
		PFHpA	0.209
		PFHxS	1.27
		6:2 FTS	0.684
		PFOA	0.344
		PFHpS	0.0711
		PFNA	0.0344
		PFOSA	0.0121
		PFOS	2.31 D
		PFDA	0.00197 J
		8:2 FTS	0.0846

Well No.		Analyte	Result (µg/L)
04-AA-MW-9	PFAS	PFBA	0.00821
		PFPeA	0.00392
		PFBS	0.0158
		PFHxA	0.0049
		PFPeS	0.00593
		PFHpA	0.0021
		PFHxS	0.0699
		PFOA	0.00557
		PFHpS	0.00109 J
		PFOSA	0.00346
		PFOS	0.045 Q

Well No.		Analyte	Result (µg/L)
03-AA-MW-8	PFAS	PFBA	0.0131
		PFPeA	0.0159
		PFBS	0.01
		PFHxA	0.0204
		PFPeS	0.00654
		PFHpA	0.0129
		PFHxS	0.158
		6:2 FTS	0.00523
		PFOA	0.0727
		PFHpS	0.00194 J
		PFNA	0.000996 J
		PFOSA	0.0174
		PFOS	0.272
		8:2 FTS	0.00583

Well No.		Analyte	Result (µg/L)
03-AA-MW-7	PFAS	PFBA	0.0286
		PFPeA	0.0504
		PFBS	0.07
		PFHxA	0.0985
		PFPeS	0.0127
		PFHpA	0.135
		PFHxS	0.423
		6:2 FTS	0.0312
		PFOA	0.3
		PFHpS	0.536
		PFNA	0.0251
		PFOSA	0.0315
		PFOS	5.17 D, Q
		8:2 FTS	0.0352

Well No.		Analyte	Result (µg/L)
01-AA-MW-4	PFAS	PFBA	0.0138
		PFPeA	0.0269
		PFBS	0.00904
		PFHxA	0.0307
		PFPeS	0.00942
		PFHpA	0.0171
		PFHxS	0.134
		6:2 FTS	0.00415
		PFOA	0.0217
		PFHpS	0.0056
		PFNA	0.00268
		PFOSA	0.0143
		PFOS	0.144
		8:2 FTS	0.00371

Well No.		Analyte	Result (µg/L)
01-AA-MW-3	PFAS	PFPeA	0.0362
		PFBS	0.0069
		PFHxA	0.0496
		PFPeS	0.00983
		PFHpA	0.038
		PFHxS	0.15
		6:2 FTS	0.0355
		PFOA	0.0544
		PFHpS	0.0212
		PFNA	0.00899
		PFOSA	0.00637
		PFOS	1.26
		8:2 FTS	0.0409

Well No.		Analyte	Result (µg/L)
03-AA-MW-6	PFAS	PFBA	0.135
		PFPeA	0.411
		PFBS	0.108
		4:2 FTS	0.0163
		PFHxA	0.521
		PFPeS	0.123
		PFHpA	0.224
		PFHxS	1
		6:2 FTS	0.8
		PFOA	0.296
		PFHpS	0.141
		PFNA	0.0129
		PFOSA	1.12
		PFOS	5.19 D
		PFDA	0.00273
		8:2 FTS	0.261
		PFNS	0.00282
		EtFOSAA	0.000987 J

Groundwater Key

BOLD	Exceeds NR 140 Wisconsin Administration Code Enforcement Standard (ES) or USEPA Health Advisory Drinking Water Standard
BOLD	Exceeds NR 140 Wisconsin Administration Code Preventative Action Limit (PAL)
BOLD	Parameter detected above laboratory method detection limit.
µg/L	Micrograms per Liter (equivalent to parts per billion)
D	Dilution
J	The amount detected is above the method detection level but below the reporting limit, an area of less certain quantitation.
Q	The ion transition ratio is outside of the acceptance criteria.
	[1]State of Wisconsin groundwater quality standards have not been established for PFAS compounds. The Wisconsin Department of Health Services (DHS) has recommended that an enforcement standard (ES) of 20 ng/L and a preventative action limit (PAL) of 2 ng/L be used for PFOA and PFOS individually and combined.
	USEPA = United States Environmental Protection Agency

LEGEND

07-AA-GP-13 ● SOIL PROBE LOCATION

03-AA-MW-7 ⊕ MONITORING WELL LOCATION

DES BY J. STEINER								F-35 Bed Down Project Wisconsin Air National Guard - Truax Field Madison, Wisconsin	AYRES Eau Claire, WI 54701 715.834.3161	GROUNDWATER IMPACTS - PFAS	SHEET NO. 4
DR BY T. SHUPERT	PROJ NO										
CHK BY J. STEINER	DATE DECEMBER 2020	NO	DATE	REVISION	NO	DATE	REVISION				

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5/10/2021
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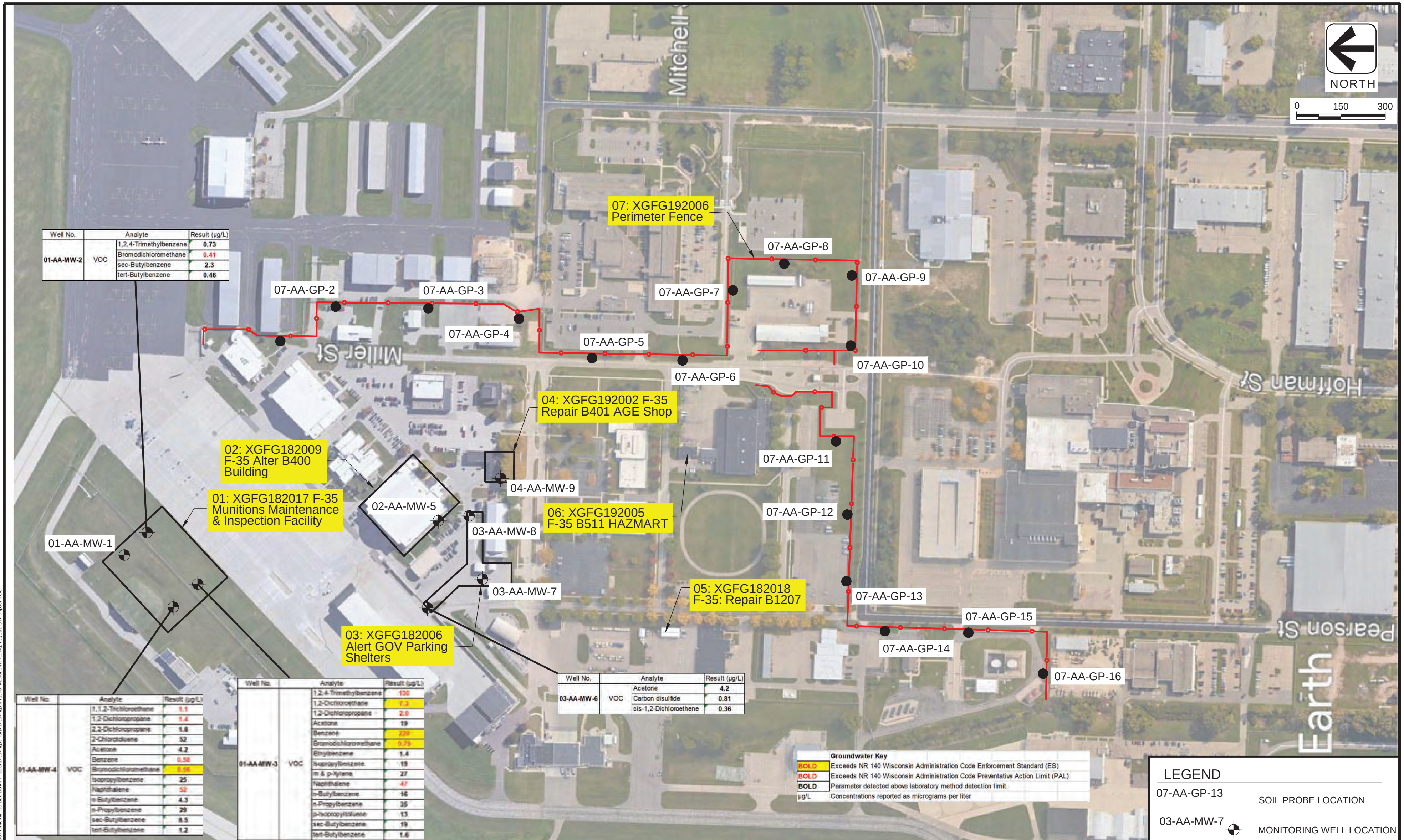

Well No.	Analyte		Result (µg/L)
01-AA-MW-2	VOC	1,2,4-Trimethylbenzene	0.73
		Bromodichloromethane	0.41
		sec-Butylbenzene	2.3
		tert-Butylbenzene	0.46

Well No.	Analyte		Result (µg/L)
01-AA-MW-4	VOC	1,1,2-Trichloroethene	1.1
		1,2-Dichloropropane	1.4
		2,2-Dichloropropane	1.8
		2-Chlorotoluene	52
		Acetone	4.2
		Benzene	0.58
		Bromodichloromethane	0.56
		Isopropylbenzene	25
		Naphthalene	52
		n-Butylbenzene	4.3
		n-Propylbenzene	29
		sec-Butylbenzene	8.5
		tert-Butylbenzene	1.2

Well No.	Analyte		Result (µg/L)
01-AA-MW-3	VOC	1,2,4-Trimethylbenzene	130
		1,2-Dichloroethane	7.3
		1,2-Dichloropropane	2.0
		Acetone	19
		Benzene	220
		Bromodichloromethane	0.79
		Ethylbenzene	1.4
		Isopropylbenzene	19
		m & p-Xylene	27
		Naphthalene	47
		n-Butylbenzene	16
		n-Propylbenzene	35
		p-Isopropyltoluene	13
		sec-Butylbenzene	19
		tert-Butylbenzene	1.6

Well No.	Analyte		Result (µg/L)
03-AA-MW-6	VOC	Acetone	4.2
		Carbon disulfide	0.81
		cis-1,2-Dichloroethene	0.36

	Groundwater Key
BOLD	Exceeds NR 140 Wisconsin Administration Code Enforcement Standard (ES)
BOLD	Exceeds NR 140 Wisconsin Administration Code Preventative Action Limit (PAL)
BOLD	Parameter detected above laboratory method detection limit.
µg/L	Concentrations reported as micrograms per liter

LEGEND

07-AA-GP-13 SOIL PROBE LOCATION

03-AA-MW-7 MONITORING WELL LOCATION

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DES BY J. STEINER		NO	DATE	REVISION	NO	DATE	REVISION
DR BY T. SHUPERT	PROJ NO						
CHK BY J. STEINER	DATE MAY 2021						

F-35 Bed Down Project
Wisconsin Air National Guard - Truax Field
Madison, Wisconsin

AYRES
Eau Claire, WI 54701
715.834.3161

GROUNDWATER IMPACTS - VOC

SHEET NO. 5

Table 1
Summary of Soil Sample Analytical Results - Per-and Polyfluorinated Alkyl Substances (PFAS)
Wisconsin Air National Guard - Truax Field - F35 Bed Down Project
10/7/2020 - 10/8/2020

Boring Number/Depth		01-AA-MW-1 1'-1.5'	01-AA-MW-1 2'-2.5'	01-AA-MW-2 1'-1.5'	01-AA-MW-2 1'-1.5' D	01-AA-MW-2 2'-2.5'	01-AA-MW-3 1'-2'	01-AA-MW-3 2'-3'	01-AA-MW-4 1'-1.5'	Soil Standards			
Soil Type		SM	SM	SM	SM	SM	SM	SM	ML	WDNR NR 720 Wis. Adm. Code[1]		Air Force Guidance for Soils and Sediments[2] (mg/Kg)	USEPA Regional Screening Level (RSL)[3] Residential Soil (mg/Kg)
Solids, Percent	CAS #	82.8	78.4	69.9	84.9	77.2	89.7	89.9	76.9	Non-Industrial Direct Contact (mg/Kg)	Industrial Direct Contact (mg/Kg)		
Per-and Polyfluorinated Alkyl Substances (PFAS)	Analytical Result (mg/Kg)												
Acronym / (Name)													
PFBA (Perfluorobutanoic acid)	375-22-4	**0.000492 J**	<0.000342	<0.000346	**0.000439 J**	<0.000339	<0.000338	<0.000338	**0.000540**	ns	ns	ns	ns
PFPeA (Perfluoropentanoic acid)	2706-90-3	<0.000394	<0.000394	<0.000398	**0.000554**	<0.00039	<0.000389	<0.000389	<0.000386	ns	ns	ns	ns
PFBS (Perfluorobutanesulfonic acid)	375-73-5	<0.000301	<0.000301	<0.000304	<0.000293	<0.000298	<0.000297	<0.000297	<0.000295	ns	ns	ns	1,300
4:2 FTS (4:2 Fluorotelomer sulfonic acid)	757124-72-4	<0.000356	<0.000356	<0.00036	<0.000347	<0.000353	<0.000352	<0.000352	<0.000349	ns	ns	ns	ns
PFHxA (Perfluorohexanoic acid)	307-24-4	<0.000214	<0.000214	**0.000311 J**	**0.000659**	**0.000393 J**	<0.000211	<0.000211	<0.00021	ns	ns	ns	ns
PFPeS (Perfluoropentanesulfonic acid)	2706-91-4	<0.000651	<0.000651	<0.000658	<0.000635	<0.000646	<0.000644	<0.000644	<0.000639	ns	ns	ns	ns
HFPO-DA (Hexafluoropropylene oxide dimer acid)	13252-13-6	<0.00117	<0.00117	<0.00118	<0.00114	<0.00116	<0.00115	<0.00115	<0.00115	ns	ns	ns	ns
PFHpA (Perfluoroheptanoic acid)	375-85-9	<0.000473	<0.000473	<0.000478	**0.000859**	<0.000469	<0.000468	<0.000468	<0.000464	ns	ns	ns	ns
ADONA (Ammonium 4,8 dioxa 3H perfluorononanoate)	919005-14-4	<0.000336	<0.000336	<0.00034	<0.000328	<0.000334	<0.000333	<0.000333	<0.00033	ns	ns	ns	ns
PFHxS (Perfluorohexanesulfonic acid)	355-46-4	<0.000386	<0.000386	**0.000632**	**0.000974**	**0.000586**	<0.000382	<0.000381	<0.000379	ns	ns	ns	ns
6:2 FTS (6:2 Fluorotelomer sulfonic acid)	27619-97-2	<0.000647	<0.000647	<0.000654	<0.000631	<0.000642	<0.00064	<0.00064	<0.000635	ns	ns	ns	ns
PFOA (Perfluorooctanoic acid)	335-67-1	<0.000465	<0.000465	<0.00047	**0.000773**	<0.000461	<0.00046	**0.000527**	<0.000456	1.26	16.4	1.26	ns
PFHpS (Perfluoroheptanesulfonic acid)	375-92-8	<0.00073	<0.00073	<0.000738	<0.000712	<0.000724	<0.000722	<0.000722	<0.000716	ns	ns	ns	ns
PFNA (Perfluorononanoic acid)	375-95-1	<0.000309	<0.000309	<0.000312	<0.000301	<0.000306	<0.000305	<0.000305	<0.000303	ns	ns	ns	ns
PFOSA (Perfluorooctane sulfonamide)	754-91-6	<0.000997	<0.000997	<0.00101	<0.000973	<0.000989	<0.000986	<0.000986	<0.000979	ns	ns	ns	ns
PFOS (Perfluorooctanesulfonic acid)	1763-23-1	<0.000425	<0.000425	**0.00264 Q**	**0.00527 Q**	**0.00147 Q**	**0.00425**	**0.00443**	**0.000506 Q**	1.26	16.4	1.26	ns
9Cl-PF3ONS (9 chlorohexadecafluoro 3 oxanonane 1 sulfonic acid)	756426-58-1	<0.000366	<0.000366	<0.00037	<0.000357	<0.000363	<0.000362	<0.000362	<0.000359	ns	ns	ns	ns
PFDA (Perfluorodecanoic acid)	335-76-2	<0.000447	<0.000447	<0.000452	<0.000436	<0.000443	<0.000442	<0.000442	<0.000439	ns	ns	ns	ns
8:2 FTS (8:2 Fluorotelomer sulfonic acid)	39108-34-4	<0.000714	<0.000714	<0.000722	<0.000697	<0.000708	<0.000706	<0.000706	<0.000701	ns	ns	ns	ns
PFNS (Perfluorononanesulfonic acid)	68259-12-1	<0.00114	<0.00114	<0.00115	<0.00111	<0.00113	<0.00113	<0.00112	<0.00112	ns	ns	ns	ns
MeFOSAA (N Methyl perfluorooctane sulfonamidoacetic acid)	2355-31-9	<0.000728	<0.000728	<0.000736	<0.00071	<0.000722	<0.00072	<0.00072	<0.000715	ns	ns	ns	ns
EtFOSAA (N Ethyl perfluorooctane sulfonamidoacetic acid)	2991-50-6	<0.000681	<0.00068	<0.000688	<0.000664	<0.000675	<0.000673	<0.000673	<0.000668	ns	ns	ns	ns
PFUnA (Perfluoroundecanoic acid)	2058-94-8	<0.000255	<0.000255	<0.000258	<0.000249	<0.000253	<0.000252	<0.000252	<0.00025	ns	ns	ns	ns
PFDS (Perfluorodecanesulfonic acid)	335-77-3	<0.000683	<0.000682	<0.00069	<0.000666	<0.000677	<0.000675	<0.000675	<0.00067	ns	ns	ns	ns
11Cl-PF3OUdS (11 chloroeicosafluoro 3 oxaundecane 1 sulfonic acid)	763051-92-9	<0.000714	<0.000714	<0.000722	<0.000697	<0.000708	<0.000706	<0.000706	<0.000701	ns	ns	ns	ns
10:2 FTS (10:2 Fluorotelomer sulfonic acid)	120226-60-0	<0.00101	<0.001	<0.00102	<0.000981	<0.000997	<0.000994	<0.000994	<0.000986	ns	ns	ns	ns
PFDoA (Perfluorododecanoic acid)	307-55-1	<0.0004	<0.0004	<0.000404	<0.00039	<0.000396	<0.000395	<0.000395	<0.000392	ns	ns	ns	ns
MeFOSA (N Methyl perfluorooctane sulfonamide)	31506-32-8	<0.00572	<0.00572	<0.00578	<0.00558	<0.00567	<0.00565	<0.00565	<0.00561	ns	ns	ns	ns
PFTrDA (Perfluorotridecanoic acid)	72629-94-8	<0.000398	<0.000398	<0.000402	<0.000388	<0.000394	<0.000393	<0.000393	<0.00039	ns	ns	ns	ns
PFDoS (Perfluorododecanesulfonic acid)	79780-39-5	<0.000594	<0.000593	<0.0006	<0.000579	<0.000589	<0.000587	<0.000587	<0.000582	ns	ns	ns	ns
PFTeDA (Perfluorotetradecanoic acid)	376-06-7	<0.000261	<0.000261	<0.000264	<0.000255	<0.000259	<0.000258	<0.000258	<0.000256	ns	ns	ns	ns
EtFOSA (N Ethyl perfluorooctane sulfonamide)	4151-50-2	<0.0038	<0.0038	<0.00384	<0.00371	<0.00377	<0.00376	<0.00376	<0.00373	ns	ns	ns	ns
PFHxDA (Perfluorohexadecanoic acid)	67905-19-5	<0.000168	<0.000168	<0.00017	<0.000164	<0.000167	<0.000166	<0.000166	<0.000165	ns	ns	ns	ns
PFODA (Perfluorooctadecanoic acid)	16517-11-6	<0.000495	<0.000494	<0.0005	<0.000483	<0.000491	<0.000489	<0.000489	<0.000485	ns	ns	ns	ns
MeFOSE (N Methyl perfluorooctane sulfonamidoethanol)	24448-09-7	<0.00491	<0.00491	<0.00496	<0.00479	<0.00487	<0.00485	<0.00485	<0.00482	ns	ns	ns	ns
EtFOSE (N Ethyl perfluorooctane sulfonamidoethanol)	1691-99-2	<0.00532	<0.00532	<0.00538	<0.00519	<0.00528	<0.00526	<0.00526	<0.00522	ns	ns	ns	ns

BOLD	Concentration exceeds WDNR NR 720 Wis. Adm Code Non-Industrial Direct Contact Standard and Air Force Guidance for Soils and Sediments
BOLD	Concentration detected above laboratory method detection limit
ns	No standard established.
<	Concentration less than laboratory method detection limit
Dup	Duplicate
mg/Kg	Milligrams per kilogram (equivalent to parts per million)
µg/Kg	µg/kg = Micrograms per Kilogram (equivalent to parts per billion)
J	The amount detected is above the method detection level but below the reporting limit, an area of less certain quantitation.
Q	The ion trasition ratio is outside of the acceptance criteria.

[1]Wisconsin Department of Natural Resources NR 720 Wisconsin Administrative Code Residual Contaminant Levels (RCLs) for soil.

[2]Air Force Guidance screening levels calculated using the USEPA Regional Screening Level calculator [https://epa-prgs.ornl.gov/cgibin/chemicals/csl_search].

[3]Unites States Environmental Protection Agency Regional Screening Levels (USEPA, 2017).

Table 1 (continued)
Summary of Soil Sample Analytical Results - Per-and Polyfluorinated Alkyl Substances (PFAS)
Wisconsin Air National Guard - Truax Field - F35 Bed Down Project
10/7/2020 - 10/8/2020

Boring Number/Depth		01-AA-MW-4 2'-2.5'	02-AA-MW-5 1'-1.5'	02-AA-MW-5 2'-2.5'	03-AA-MW-6 1'-1.5'	03-AA-MW-6 2'-2.5'	03-AA-MW-7 1'-1.5'	03-AA-MW-7 2'-2.5'	03-AA-MW-8 1'-1.5'	Soil Standards			
Soil Type		ML	SM	SM	SW	CL	SM	SM	CL	WDNR NR 720 Wis. Adm. Code[1]		Air Force Guidance for Soils and Sediments[2] (mg/Kg)	USEPA Regional Screening Level (RSL)[3] Residential Soil (mg/Kg)
Solids, Percent	CAS #	77.9	86.1	82.9	80.9	83.7	90.1	92.5	83.7				
Per-and Polyfluorinated Alkyl Substances (PFAS) Acronym / (Name)		Analytical Result (mg/Kg)								Non-Industrial Direct Contact (mg/Kg)	Industrial Direct Contact (mg/Kg)		
PFBA (Perfluorobutanoic acid)	375-22-4	<0.000344	**0.000434 J**	<0.000334	<0.000342	<0.000339	<0.000346	<0.000334	<0.000341	ns	ns	ns	ns
PFPeA (Perfluoropentanoic acid)	2706-90-3	<0.000396	**0.000883**	<0.000384	<0.000393	<0.00039	<0.000398	<0.000384	<0.000393	ns	ns	ns	ns
PFBS (Perfluorobutanesulfonic acid)	375-73-5	<0.000302	<0.000292	<0.000293	<0.0003	<0.000298	<0.000304	<0.000293	<0.0003	ns	ns	ns	1,300
4:2 FTS (4:2 Fluorotelomer sulfonic acid)	757124-72-4	<0.000358	<0.000346	<0.000347	<0.000356	**0.000497**	<0.00036	<0.000347	<0.000355	ns	ns	ns	ns
PFHxA (Perfluorohexanoic acid)	307-24-4	<0.000215	**0.000420 J**	<0.000208	<0.000213	**0.000447**	<0.000216	<0.000208	<0.000649	ns	ns	ns	ns
PFPeS (Perfluoropentanesulfonic acid)	2706-91-4	<0.000654	<0.000632	<0.000635	<0.00065	<0.000644	<0.000657	<0.000635	<0.00116	ns	ns	ns	ns
HFPO-DA (Hexafluoropropylene oxide dimer acid)	13252-13-6	<0.00117	<0.00113	<0.00114	<0.00117	<0.00116	<0.00118	<0.00114	<0.000472	ns	ns	ns	ns
PFHpA (Perfluoroheptanoic acid)	375-85-9	<0.000475	**0.000552**	<0.000461	<0.000472	<0.000468	<0.000478	<0.000461	<0.000335	ns	ns	ns	ns
ADONA (Ammonium 4,8 dioxa 3H perfluorononanoate)	919005-14-4	<0.000338	<0.000326	<0.000328	<0.000336	<0.000333	<0.00034	<0.000328	<0.000335	ns	ns	ns	ns
PFHxS (Perfluorohexanesulfonic acid)	355-46-4	<0.000388	**0.00336**	<0.000376	<0.000385	<0.000382	<0.00039	<0.000376	**0.00243**	ns	ns	ns	ns
6:2 FTS (6:2 Fluorotelomer sulfonic acid)	27619-97-2	<0.00065	<0.000628	**0.00174**	**0.00175**	**0.0146**	<0.000653	<0.000631	<0.000645	ns	ns	ns	ns
PFOA (Perfluorooctanoic acid)	335-67-1	<0.000467	**0.00221**	<0.000453	<0.000464	<0.00046	<0.00047	<0.000453	**0.000613**	1.26	16.4	1.26	ns
PFHpS (Perfluoroheptanesulfonic acid)	375-92-8	<0.000734	<0.000709	<0.000712	<0.000729	<0.000723	<0.000737	<0.000712	<0.000728	ns	ns	ns	ns
PFNA (Perfluorononanoic acid)	375-95-1	<0.00031	**0.000620**	<0.000301	<0.000308	<0.000305	<0.000312	<0.000301	**0.000380 J**	ns	ns	ns	ns
PFOSA (Perfluorooctane sulfonamide)	754-91-6	<0.001	<0.000968	**0.0163 Q**	**0.0196**	**0.0155**	**0.00631**	**0.00874**	<0.000994	ns	ns	ns	ns
PFOS (Perfluorooctanesulfonic acid)	1763-23-1	<0.000427	**0.00625 Q**	**0.0159**	**0.0162**	**0.00714**	**0.0311**	**0.0375**	**0.0103 Q**	1.26	16.4	1.26	ns
9Cl-PF3ONS (9 chlorohexadecafluoro 3 oxanonane 1 sulfonic ac	756426-58-1	<0.000368	<0.000355	<0.000357	<0.000366	<0.000362	<0.00037	<0.000357	<0.000365	ns	ns	ns	ns
PFDA (Perfluorodecanoic acid)	335-76-2	<0.000449	<0.000434	<0.000436	<0.000447	<0.000443	<0.000452	<0.000436	<0.000446	ns	ns	ns	ns
8:2 FTS (8:2 Fluorotelomer sulfonic acid)	39108-34-4	<0.000718	<0.000693	**0.00287**	**0.00235**	**0.00130**	**0.00104**	<0.000696	<0.000712	ns	ns	ns	ns
PFNS (Perfluorononanesulfonic acid)	68259-12-1	<0.00114	<0.0011	<0.00111	<0.00114	<0.00113	<0.00115	<0.00111	<0.00113	ns	ns	ns	ns
MeFOSAA (N Methyl perfluorooctane sulfonamidoacetic acid)	2355-31-9	<0.000732	<0.000707	<0.00071	<0.000727	<0.000721	<0.000735	<0.00071	<0.000726	ns	ns	ns	ns
EtFOSAA (N Ethyl perfluorooctane sulfonamidoacetic acid)	2991-50-6	<0.000684	<0.000661	<0.000664	<0.00068	<0.000674	<0.000687	<0.000664	<0.000679	ns	ns	ns	ns
PFUnA (Perfluoroundecanoic acid)	2058-94-8	<0.000256	<0.000248	<0.000249	<0.000255	<0.000253	<0.000258	<0.000249	<0.000255	ns	ns	ns	ns
PFDS (Perfluorodecanesulfonic acid)	335-77-3	<0.000686	<0.000663	<0.000666	<0.000682	<0.000676	<0.000689	<0.000665	<0.000681	ns	ns	ns	ns
11Cl-PF3OUdS (11 chloroeicosafluoro 3 oxaundecane 1 sulfonic	763051-92-9	<0.000718	<0.000693	<0.000696	<0.000713	<0.000707	<0.000721	<0.000696	<0.000712	ns	ns	ns	ns
10:2 FTS (10:2 Fluorotelomer sulfonic acid)	120226-60-0	<0.00101	<0.000976	<0.00098	<0.001	<0.000995	<0.00101	<0.00098	<0.001	ns	ns	ns	ns
PFDoA (Perfluorododecanoic acid)	307-55-1	<0.000402	<0.000388	<0.00039	<0.000399	<0.000396	<0.000404	<0.00039	<0.000399	ns	ns	ns	ns
MeFOSA (N Methyl perfluorooctane sulfonamide)	31506-32-8	<0.00575	<0.00555	<0.00557	<0.00571	<0.00566	<0.00577	<0.00557	<0.0057	ns	ns	ns	ns
PFTrDA (Perfluorotridecanoic acid)	72629-94-8	<0.0004	<0.000386	<0.000388	<0.000397	<0.000394	<0.000402	<0.000388	<0.000397	ns	ns	ns	ns
PFDoS (Perfluorododecanesulfonic acid)	79780-39-5	<0.000596	<0.000576	<0.000579	<0.000593	<0.000587	<0.000599	<0.000579	<0.000592	ns	ns	ns	ns
PFTeDA (Perfluorotetradecanoic acid)	376-06-7	<0.000262	<0.000253	<0.000255	<0.000261	<0.000258	<0.000264	<0.000255	<0.00026	ns	ns	ns	ns
EtFOSA (N Ethyl perfluorooctane sulfonamide)	4151-50-2	<0.00382	<0.00369	<0.0037	<0.00379	<0.00376	<0.00384	<0.0037	<0.00379	ns	ns	ns	ns
PFHxDA (Perfluorohexadecanoic acid)	67905-19-5	<0.000169	<0.000163	<0.000164	<0.000168	<0.000166	<0.00017	<0.000164	<0.000168	ns	ns	ns	ns
PFODA (Perfluorooctadecanoic acid)	16517-11-6	<0.000497	<0.00048	<0.000482	<0.000494	<0.00049	<0.000499	<0.000482	<0.000493	ns	ns	ns	ns
MeFOSE (N Methyl perfluorooctane sulfonamidoethanol)	24448-09-7	<0.00493	<0.00476	<0.00478	<0.0049	<0.00486	<0.00495	<0.00478	<0.00489	ns	ns	ns	ns
EtFOSE (N Ethyl perfluorooctane sulfonamidoethanol)	1691-99-2	<0.00535	<0.00517	<0.00519	<0.00532	<0.00527	<0.00537	<0.00519	<0.00531	ns	ns	ns	ns

BOLD	Concentration exceeds WDNR NR 720 Wis. Adm Code Non-Industrial Direct Contact Standard and Air Force Guidance for Soils and Sediments
BOLD	Concentration detected above laboratory method detection limit
ns	No standard established.
<	Concentration less than laboratory method detection limit
Dup	Duplicate
mg/Kg	Milligrams per kilogram (equivalent to parts per million)
µg/Kg	µg/kg = Micrograms per Kilogram (equivalent to parts per billion)
J	The amount detected is above the method detection level but below the reporting limit, an area of less certain quantitation.
Q	The ion trasition ratio is outside of the acceptance criteria.

[1]Wisconsin Department of Natural Resources NR 720 Wisconsin Administrative Code Residual Contaminant Levels (RCLs) for soil.
[2]Air Force Guidance screening levels calculated using the USEPA Regional Screening Level calculator [https://epa-prgs.ornl.gov/cgibin/chemicals/csl_search].

Table 2 - Summary of Groundwater Analytical Results - Per-and Polyfluorinated Alkyl Substances (PFAS)
Wisconsin Air National Guard - Truax Field - F35 Bed Down Project
10/8/2020

Well Number	CAS #	01-AA-MW-1	01-AA-MW-2	01-AA-MW-3	01-AA-MW-4	02-AA-MW-5	02-AA-MW-5 Dup	03-AA-MW-6	03-AA-MW-7	03-AA-MW-8	04-AA-MW-9	MW-7 EB	Groundwater Standards	
													NR 140 Wis. Adm. Code (µg/L)[1]	USEPA Health Advisory Drinking Water (Surface Water or Groundwater) (µg/L)
Sampling Date		10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/7/2020	10/8/2020	ES / PAL	
Acronym / (Name)		Analytical Result (µg/L)												
PFBA (Perfluorobutanoic acid)	375-22-4	**0.00393**	**0.00976**	<0.000368	**0.0138**	**0.161**	**0.144**	**0.135**	**0.0286**	**0.0131**	**0.00821**	<0.000367	ns	ns
PFPeA (Perfluoropentanoic acid)	2706-90-3	**0.00231**	**0.00824**	**0.0362**	**0.0269**	**0.368**	**0.369**	**0.411**	**0.0504**	**0.0159**	**0.00392**	<0.000645	ns	ns
PFBS (Perfluorobutanesulfonic acid)	375-73-5	**0.00194 J**	**0.00429**	**0.0069**	**0.00904**	**0.0988**	**0.0962**	**0.108**	**0.07**	**0.01**	**0.0158**	<0.000902	ns	ns
4:2 FTS (4:2 Fluorotelomer sulfonic acid)	757124-72-4	<0.000702	<0.000707	<0.000702	<0.000714	**0.0118**	**0.0117**	**0.0163**	<0.000688	<0.000719	<0.000719	<0.0007	ns	ns
PFHxA (Perfluorohexanoic acid)	307-24-4	**0.00214**	**0.011**	**0.0496**	**0.0307**	**0.415**	**0.413**	**0.521**	**0.0985**	**0.0204**	**0.0049**	<0.0011	ns	ns
PFPeS (Perfluoropentanesulfonic acid)	2706-91-4	<0.00122	**0.00564**	**0.00983**	**0.00942**	**0.1**	**0.0964**	**0.123**	**0.0127**	**0.00654**	**0.00593**	<0.00122	ns	ns
HFPO-DA (Hexafluoropropylene oxide dimer acid)	13252-13-6	<0.00243	<0.00245	<0.00243	<0.00248	<0.00252	<0.00253	<0.00248	<0.00238	<0.00249	<0.00249	<0.00243	ns	ns
PFHpA (Perfluoroheptanoic acid)	375-85-9	**0.00174 J**	**0.00901**	**0.038**	**0.0171**	**0.209**	**0.201**	**0.224**	**0.135**	**0.0129**	**0.0021**	<0.000298	ns	ns
ADONA (Ammonium 4,8 dioxa 3H perfluorononanoate)	919005-14-4	<0.000365	<0.000367	<0.000364	<0.000371	<0.000377	<0.000379	<0.000372	<0.000357	<0.000373	<0.000373	<0.000364	ns	ns
PFHxS (Perfluorohexanesulfonic acid)	355-46-4	**0.0106**	**0.0632**	**0.15**	**0.134**	**1.27**	**1.23**	**1**	**0.423**	**0.158**	**0.0699**	<0.000477	ns	ns
6:2 FTS (6:2 Fluorotelomer sulfonic acid)	27619-97-2	<0.00101	<0.00102	**0.0355**	**0.00415**	**0.684**	**0.655**	**0.8**	**0.0312**	**0.00523**	<0.00103	<0.00101	ns	ns
PFOA (Perfluorooctanoic acid)	335-67-1	**0.00246**	**0.0111**	**0.0544**	**0.0217**	**0.344**	**0.334**	**0.296**	**0.3**	**0.0727**	**0.00557**	<0.000328	0.02	0.002	0.07
PFHpS (Perfluoroheptanesulfonic acid)	375-92-8	<0.000473	**0.000532 J**	**0.0212**	**0.0056**	**0.0711**	**0.0607**	**0.141**	**0.536**	**0.00194 J**	**0.00109 J**	<0.000472	ns	ns
PFNA (Perfluorononanoic acid)	375-95-1	**0.000758 J**	**0.00118 J**	**0.00899**	**0.00268**	**0.0344**	**0.0327**	**0.0129**	**0.0251**	**0.000996 J**	<0.000419	<0.000408	ns	ns
PFOSA (Perfluorooctane sulfonamide)	754-91-6	**0.00503**	**0.00511**	**0.00637**	**0.0143**	**0.0121**	**0.0097**	**1.12**	**0.0315**	**0.0174**	**0.00346**	**0.00104 J**	ns	ns
PFOS (Perfluorooctanesulfonic acid)	1763-23-1	**0.0535**	**0.0218 Q**	**1.26**	**0.144**	**2.31 D**	**2.55 D**	**5.19 D**	**5.17 D, Q**	**0.272**	**0.045 Q**	<0.000406	0.02	0.002	0.07
9Cl-PF3ONS (9 chlorohexadecafluoro 3 oxanonane 1 sulfonic acid)	756426-58-1	<0.000732	<0.000737	<0.000732	<0.000745	<0.000758	<0.00076	<0.000747	<0.000717	<0.00075	<0.00075	<0.00073	ns	ns
PFDA (Perfluorodecanoic acid)	335-76-2	<0.000752	<0.000758	<0.000752	<0.000765	**0.00197 J**	**0.00169 J**	**0.00273**	<0.000737	<0.00077	<0.00077	<0.00075	ns	ns
8:2 FTS (8:2 Fluorotelomer sulfonic acid)	39108-34-4	**0.00131 J**	<0.00105	**0.0409**	**0.00371**	**0.0846**	**0.0856**	**0.261**	**0.0352**	**0.00583**	<0.00106	<0.00104	ns	ns
PFNS (Perfluorononanesulfonic acid)	68259-12-1	<0.00195	<0.00197	<0.00195	<0.00199	<0.00202	<0.00203	**0.00282**	<0.00191	<0.002	<0.002	<0.00195	ns	ns
MeFOSAA (N Methyl perfluorooctane sulfonamidoacetic acid)	2355-31-9	<0.000833	<0.000839	<0.000833	<0.000848	<0.000863	<0.000865	<0.00085	<0.000816	<0.000853	<0.000853	<0.000831	ns	ns
EtFOSAA (N Ethyl perfluorooctane sulfonamidoacetic acid)	2991-50-6	<0.000692	<0.000697	<0.000692	<0.000704	<0.000716	<0.000718	**0.000987 J**	<0.000678	<0.000708	<0.000708	<0.00069	ns	ns
PFUnA (Perfluoroundecanoic acid)	2058-94-8	<0.00053	<0.000534	<0.00053	<0.000539	<0.000549	<0.00055	<0.000541	<0.000519	<0.000543	<0.000543	<0.000529	ns	ns
PFDS (Perfluorodecanesulfonic acid)	335-77-3	<0.000621	<0.000626	<0.000621	<0.000632	<0.000643	<0.000645	<0.000633	<0.000608	<0.000636	<0.000636	<0.00062	ns	ns
11Cl-PF3OUdS (11 chloroeicosafluoro 3 oxaundecane 1 sulfonic acid)	763051-92-9	<0.00122	<0.00123	<0.00122	<0.00124	<0.00126	<0.00126	<0.00124	<0.00119	<0.00125	<0.00125	<0.00121	ns	ns
10:2 FTS (10:2 Fluorotelomer sulfonic acid)	120226-60-0	<0.00158	<0.00159	<0.00158	<0.00161	<0.00164	<0.00164	<0.00161	<0.00155	<0.00162	<0.00162	<0.00158	ns	ns
PFDoA (Perfluorododecanoic acid)	307-55-1	<0.0004	<0.000403	<0.0004	<0.000407	<0.000414	<0.000415	<0.000408	<0.000392	<0.000409	<0.000409	<0.000399	ns	ns
MeFOSA (N Methyl perfluorooctane sulfonamide)	31506-32-8	<0.00193	<0.00195	<0.00193	<0.00197	<0.002	<0.00201	<0.00197	<0.00189	<0.00198	<0.00198	<0.00193	ns	ns
PFTrDA (Perfluorotridecanoic acid)	72629-94-8	<0.000249	<0.000251	<0.000249	<0.000254	<0.000258	<0.000259	<0.000254	<0.000244	<0.000255	<0.000255	<0.000249	ns	ns
PFDoS (Perfluorododecanesulfonic acid)	79780-39-5	<0.00211	<0.00212	<0.00211	<0.00214	<0.00218	<0.00219	<0.00215	<0.00206	<0.00216	<0.00216	<0.0021	ns	ns
PFTeDA (Perfluorotetradecanoic acid)	376-06-7	<0.000381	<0.000384	<0.000381	<0.000388	<0.000395	<0.000396	<0.000389	<0.000373	<0.00039	<0.00039	<0.00038	ns	ns
EtFOSA (N Ethyl perfluorooctane sulfonamide)	4151-50-2	<0.00258	<0.0026	<0.00258	<0.00262	<0.00267	<0.00268	<0.00263	<0.00253	<0.00264	<0.00264	<0.00257	ns	ns
PFHxDA (Perfluorohexadecanoic acid)	67905-19-5	<0.000148	<0.00015	<0.000148	<0.000151	<0.000154	<0.000154	<0.000151	<0.000145	<0.000152	<0.000152	<0.000148	ns	ns
PFODA (Perfluorooctadecanoic acid)	16517-11-6	<0.0031	<0.00312	<0.0031	<0.00315	<0.00321	<0.00322	<0.00316	<0.00304	<0.00317	<0.00317	<0.00309	ns	ns
MeFOSE (N Methyl perfluorooctane sulfonamidoethanol)	24448-09-7	<0.00306	<0.00309	<0.00306	<0.00312	<0.00317	<0.00318	<0.00313	<0.003	<0.00314	<0.00314	<0.00306	ns	ns
EtFOSE (N Ethyl perfluorooctane sulfonamidoethanol)	1691-99-2	<0.00477	<0.0048	<0.00477	<0.00485	<0.00494	<0.00495	<0.00486	<0.00467	<0.00488	<0.00488	<0.00475	ns	ns

BOLD	Exceeds NR 140 Wisconsin Administration Code Enforcement Standard (ES) or USEPA Health Advisory Drinking Water Standard
BOLD	Exceeds NR 140 Wisconsin Administration Code Preventative Action Limit (PAL)
BOLD	Parameter detected above laboratory method detection limit.
µg/L	Micrograms per Liter (equivalent to parts per billion)
ns	No standard established
D	Dilution
J	The amount detected is above the method detection level but below the reporting limit, an area of less certain quantitation.
Q	The ion transition ratio is outside of the acceptance criteria.

[1]State of Wisconsin groundwater quality standards have not been established for PFAS compounds. The Wisconsin Department of Health Services (DHS) has recommended that an enforcement standard (ES) of 20 ng/L and a preventative action limit (PAL) of 2 ng/L be used for PFOA and PFOS individually and combined.

USEPA = United States Environmental Protection Agency

Table 3 - Summary of Groundwater Analytical Results - Volatile Organic Compounds (VOC)
Wisconsin Air National Guard - Truax Field - F35 Bed Down Project
10/08/20

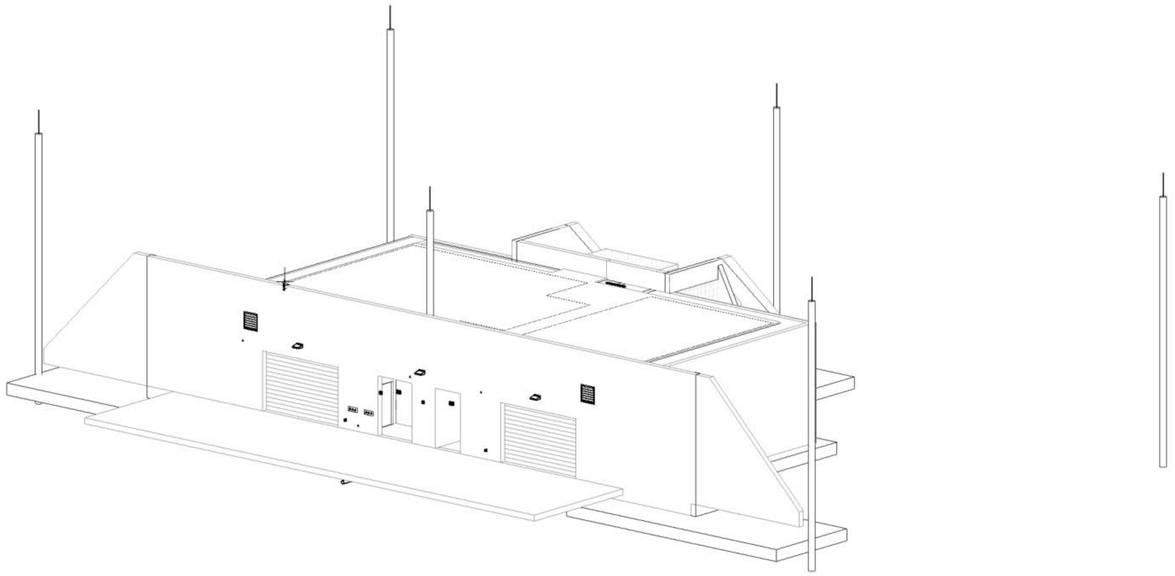
												Trip	Groundwater Standards	
Well Number		**01-AA-MW-1**	**01-AA-MW-2**	**01-AA-MW-3**	**01-AA-MW-3 DUP**	**01-AA-MW-4**	**02-AA-MW-5**	**03-AA-MW-6**	**03-AA-MW-7**	**03-AA-MW-8**	**04-AA-MW-9**	**Blank**	**NR 140 Wis. Adm. Code**	
Sampling Date	**CAS #**	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/8/2020	10/7/2020	**ES**	**PAL**
Volatile Organic Compounds		**Analytical Result (µg/L)**											**(µg/L)**	
1,1,1,2-Tetrachloroethane	630-20-6	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	70	7
1,1,1-Trichloroethane	71-55-6	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	200	40
1,1,2,2-Tetrachloroethane	79-34-5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.2	0.02
1,1,2-Trichloroethane	79-00-5	<0.30	<0.30	<0.30	<0.30	**1.1**	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	5	0.5
1,1-Dichloroethane	75-34-3	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	850	85
1,1-Dichloroethene	75-35-4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	7	0.7
1,1-Dichloropropene	563-58-6	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
1,2,3-Trichlorobenzene	87-61-6	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	ns	ns
1,2,3-Trichloropropane	96-18-4	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	60	12
1,2,4-Trichlorobenzene	120-82-1	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	70	14
1,2,4-Trimethylbenzene	95-63-6	<0.29	**0.73**	**130**	**130**	<0.29 M	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	480	96
1,2-Dibromo-3-chloropropane	96-12-8	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	0.2	0.02
1,2-Dibromoethane	106-93-4	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.05	0.005
1,2-Dichlorobenzene	95-50-1	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	600	60
1,2-Dichloroethane	107-06-2	<0.24	<0.24	**7.3**	**7.2**	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	5	0.5
1,2-Dichloropropane	78-87-5	<0.18	<0.18	**2.0**	**1.9**	**1.4**	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	5	0.5
1,3,5-Trimethylbenzene	108-67-8	<0.27	<0.27	<0.27	<0.27	<0.27 M	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	480	96
1,3-Dichlorobenzene	541-73-1	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	600	120
1,3-Dichloropropane	142-28-9	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	ns	ns
1,4-Dichlorobenzene	106-46-7	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	75	15
2,2-Dichloropropane	594-20-7	<0.30	<0.30	<0.30	<0.30	**1.8**	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
2-Butanone	78-93-3	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	4,000	800
2-Chlorotoluene	95-49-8	<0.25	<0.25	<0.25	<0.25	**52 M**	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	ns	ns
2-Hexanone	591-78-6	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	ns	ns
4-Chlorotoluene	106-43-4	<0.30	<0.30	<0.30	<0.30	<0.30 M	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
4-Methyl-2-pentanone	108-10-1	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	500	50
Acetone	67-64-1	<4.0	<4.0	**19**	**17**	**4.2**	<4.0	**4.2**	<4.0	<4.0	<4.0	<4.0	9,000	1,800
Benzene	71-43-2	<0.40	<0.40	**220**	**210**	**0.58**	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	5	0.5
Bromobenzene	108-86-1	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	ns	ns
Bromochloromethane	74-97-5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
Bromodichloromethane	75-27-4	<0.29	**0.41**	**0.79**	**0.82**	**0.56**	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	0.5	0.06
Bromoform	75-25-2	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	4.4	0.44
Bromomethane	74-83-9	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	10	1
Carbon disulfide	75-15-0	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	**0.81**	<0.60	<0.60	<0.60	<0.60	1,000	200
Carbon tetrachloride	56-23-5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	5	0.5
Chlorobenzene	108-90-7	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
Chloroethane	75-00-3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	400	80
Chloroform	67-66-3	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	6	0.6
Chloromethane	74-87-3	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	30	3
cis-1,2-Dichloroethene	156-59-2	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	**0.36**	<0.30	<0.30	<0.30	<0.30	70	7
cis-1,3-Dichloropropene	10061-01-5	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	0.4	0.04
Dibromochloromethane	124-48-1	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	60	6
Dibromomethane	74-95-3	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	ns	ns
Dichlorodifluoromethane	75-71-8	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	1,000	200
Diisopropyl ether	108-20-3	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	ns	ns
Ethylbenzene	100-41-4	<0.30	<0.30	**1.4**	**1.3**	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	700	140
Hexachlorobutadiene	87-68-3	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	ns	ns
Isopropylbenzene	98-82-8	<0.30	<0.30	**19**	**19**	**25**	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
m & p-Xylene	179601-23-1	<0.70	<0.70	**27**	**29**	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	2000	400
Methyl tert-butyl ether	1634-04-4	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	60	12
Methylene chloride	75-09-2	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	**0.91**	5	0.5
Naphthalene	91-20-3	<0.30	<0.30	**47**	**52**	**52**	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	100	10
n-Butylbenzene	104-51-8	<0.29	<0.29	**16**	**16**	**4.3 M**	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	ns	ns
n-Propylbenzene	103-65-1	<0.30	<0.30	**35**	**36**	**29**	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
o-Xylene	95-47-6	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	2000	400
p-Isopropyltoluene	99-87-6	<0.30	<0.30	**13**	**13**	<0.30 M	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	ns	ns
sec-Butylbenzene	135-98-8	<0.40	**2.3**	**19**	**19**	**8.5 M**	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	ns	ns
Styrene	100-42-5	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	100	10
tert-Butylbenzene	98-06-6	<0.40	**0.46**	**1.6**	**1.6**	**1.2 M**	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	ns	ns
Tetrachloroethene	127-18-4	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	5	0.5
Tetrahydrofuran	109-99-9	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	50	10
Toluene	108-88-3	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	800	160
trans-1,2-Dichloroethene	156-60-5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	100	20
trans-1,3-Dichloropropene	10061-02-6	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	0.4	0.04
Trichloroethene	79-01-6	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	5	0.5
Trichlorofluoromethane	75-69-4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	ns	ns
Vinyl acetate	108-05-4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ns	ns
Vinyl chloride	75-01-4	<0.14	<0.14	<0.14	<0.14	<0.14 M	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	0.2	0.002

BOLD	Exceeds NR 140 Wisconsin Administration Code Enforcement Standard (ES)
BOLD	Exceeds NR 140 Wisconsin Administration Code Preventative Action Limit (PAL)
BOLD	Parameter detected above laboratory method detection limit.
µg/L	Concentrations reported as micrograms per liter
--	Not analyzed
ns	No standard established
	USEPA = United States Environmental Protection Agency
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits

National Guard Bureau

F-35 Beddown - Munitions M&I Facility

Truax Field, Madison, Wisconsin



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LINDSAY D. HAUSMAN E-48143-6 SPRINGFIELD ILLINOIS — PROFESSIONAL ENGINEER — 10/12/23

GENE O. BROWN E-47748 OKLAHOMA CITY OK — PROFESSIONAL ENGINEER — 10/27/23

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JOHN T LITTLE E-47833 EDMOND OK — PROFESSIONAL ENGINEER — 10/27/2023

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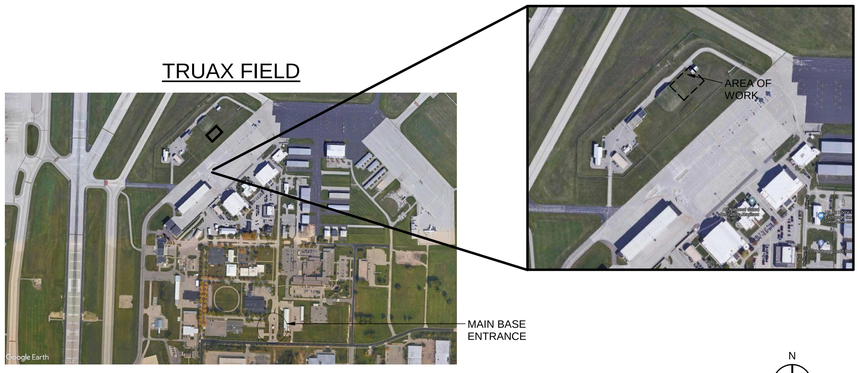
October 27, 2023

TRUAX FIELD



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1 VICINITY MAP
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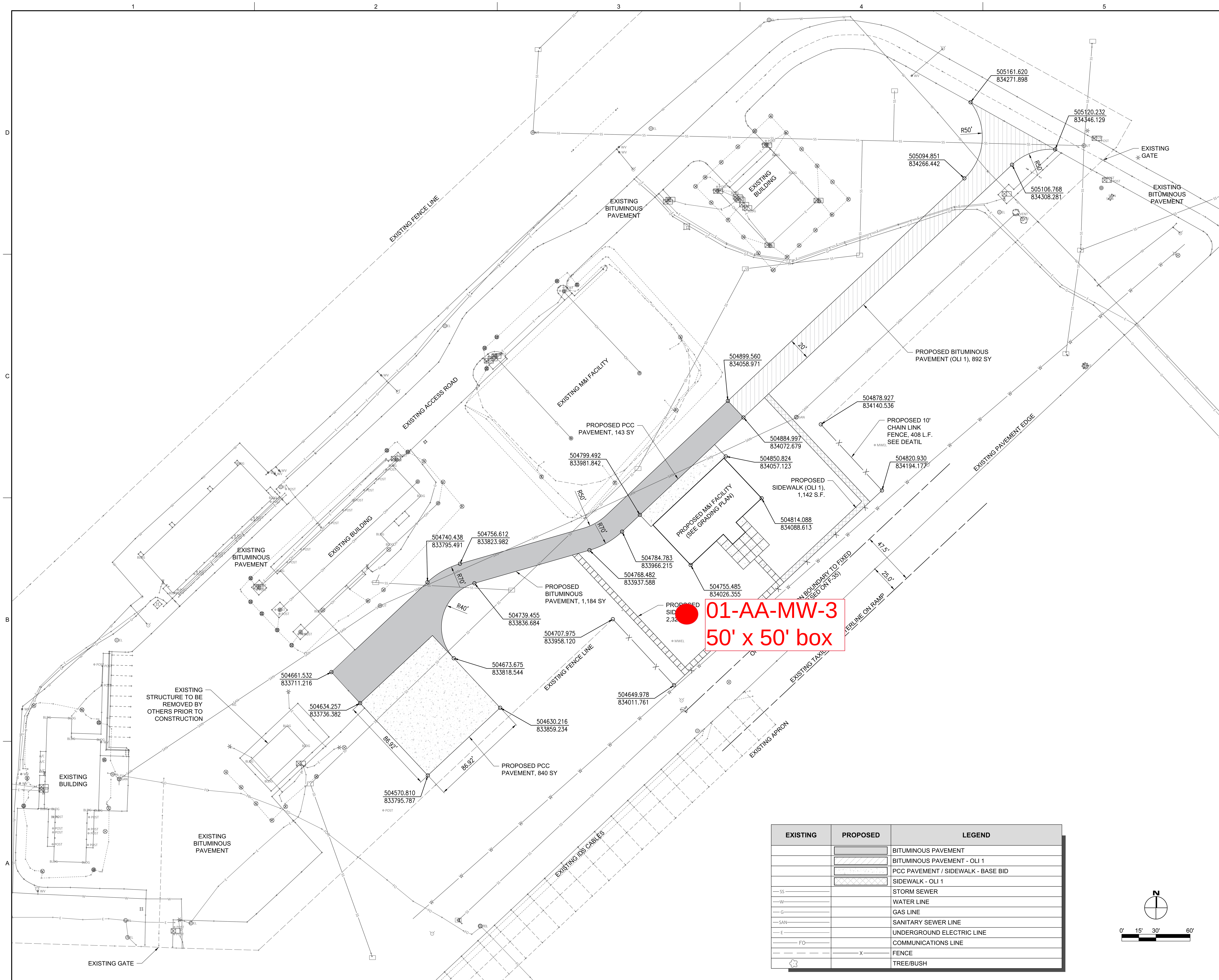

EXISTING	PROPOSED	LEGEND
		BITUMINOUS PAVEMENT
		BITUMINOUS PAVEMENT - OLI 1
		PCC PAVEMENT / SIDEWALK - BASE BID
		SIDEWALK - OLI 1
SS		STORM SEWER
W		WATER LINE
G		GAS LINE
SAN		SANITARY SEWER LINE
E		UNDERGROUND ELECTRIC LINE
FO		COMMUNICATIONS LINE
	X	FENCE
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SPRINGFIELD ILLINOIS
PROFESSIONAL ENGINEER
Lindsay Hausman 10/12/23

115TH FIGHTER WING

F-35 Beddown Munitions M & I Facility

Truax Field, Madison, Wisconsin

REVISION HISTORY:

	DESCRIPTION	DATE

PROJECT INFORMATION:

DESIGNED BY: LDH

DRAWN BY: LDH

REVIEWED BY: HLE

PROJECT MANAGER: NWC/MT

PROJECT NUMBER: FSB2020-332-01

SHEET TITLE: PROPOSED PLAN

ISSUE DATE: OCTOBER 27, 2023

SHEET NUMBER: C-402