



March 20, 2024

Client: Lawton (MP) PWA DW

East Lake Drive

Medicine Park, OK 73557

Requested By: -



National Environmental Laboratory Accreditation Program ODEQ TNI Certified

Sample Project Name: UCMR5
Date Samples Received: March 06, 2024 Time: 19:05 sample temp upon arrival at lab = 5.10°C - On Ice
Matrix: Drinking Water
Lab Log Numbers: GC06152-01 GC06152-02 GC06152-03 GC06152-04

Work Order: GC06152
Report #: GC06152-0320240845
EPA Lab ID#'s: Stillwater OK00092 Tulsa OK00983 OKC OK00129 ICR OK 001

Oklahoma Certification: Stillwater NELAP WasteWater, ODEQ 8316/ Drinking Water, DEQ D9602
NELAP Tulsa WasteWater, ODEQ 9905 / Drinking Water, DEQ D9901
Oklahoma City NELAP WasteWater ODEQ 7202 / Drinking Water, DEQ D9937

Kansas Certification: Stillwater NELAP CERT # E-10219

Method Reference: 40 CFR 136, 141, and 261 Methods for Chemical Analysis of Water and Wastes
EPA-600/4-79-020, March 1983. Test Methods for Evaluating Solid Wastes, SW-846, Final Update VI. Standard Methods 2005 (21st Edition), Standard Methods 2011 (22nd Edition), Standard Methods 2017 (23rd Edition) for the Examination of Water and Wastewater.

Analysis Reference: If qualifiers present in "Prep Info" or "Analysis Info", then analysis performed as follows: @= Tulsa Lab and \* = OKC Lab. If no qualifiers present, then analysis performed at Stillwater Lab.

Accurate Environmental Laboratories certify that the test results performed meet all requirements of TNI. Any exceptions to this can be found in the report notes, Quality Control section, or Method/Parameter section of the report.
- No cert. = Laboratory does not carry certification for this method/analysis.
- Non-TNI = Laboratory has state certification but method does not fall under TNI certification.

This report is to only be replicated in its entirety.

Revised or Amended reports supersede all previous reports.

Accurate Environmental sampling protocol was followed for any sampling performed by Accurate Field Services.

Field accreditation certification only applies to wastewater analysis. Field analysis for drinking water methods are not offered as part of the ODEQ's field certification program.

Sample: TP002

Location Code:

PWSID#:

Collection Type: Grab

Sample Time: 3/6/24 10:25

Lab Log# GC06152-01

Method/Parameter	Test	Result	Notes	PQL#	Prep Info	Analysis Info
Lithium (Li) EPA 200.7 UCMR5	Lithium	BPQL ug/L		9.00	03/16/24 07:05 LF	03/16/24 14:47 LF
Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	BPQL ug/L		0.00580	03/07/24 08:14 HDM	03/11/24 13:53 CHC
Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	BPQL ug/L		0.00470	03/07/24 08:14 HDM	03/11/24 13:53 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorobutanoic acid (PFBA)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	BPQL ug/L		0.00650	03/07/24 08:14 HDM	03/11/24 13:53 CHC
Perfluorinated Comps by EPA 533 UCMR5	PFMPA	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanoic acid (PFPeA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	BPQL ug/L		0.00714	03/07/24 08:14 HDM	03/11/24 13:53 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorobutanesulfonic acid (PFBS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	PFMBA	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	NFDHA	BPQL ug/L		0.0179	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2FTS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorohexanoic acid (PFHxA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanesulfonic acid (PFPeS)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	hexafluoropropylene oxide dimer acid (HFPO-DA)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluoroheptanoic acid (PFHpA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorohexanesulfonic acid (PFHxS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2FTS)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorooctanoic acid (PFOA)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoroheptanesulfonic acid (PFHpS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorooctanesulfonic acid (PFOS)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorononanoic acid (PFNA)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	9Cl-PF3ONS	BPQL ug/L		0.00179	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2FTS)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:23 CHC

Sample:

Location Code:

PWSID#:

Collection Type: Grab

Sample Time: 3/6/24 10:25

Lab Log# GC06152-01

Method/Parameter	Test	Result	Notes	PQL#	Prep Info	Analysis Info
Perfluorinated Comps by EPA 533 UCMR5	perfluorodecanoic acid (PFDA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluoroundecanoic acid (PFUnA)	BPQL ug/L		0.00179	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	11Cl-PF3OUdS	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:23 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorododecanoic acid (PFDoA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:23 CHC

Sample: TP003

Location Code:

PWSID#:

Collection Type: Grab

Sample Time: 3/6/24 11:35

Lab Log# GC06152-03

Method/Parameter	Test	Result	Notes	PQL#	Prep Info	Analysis Info
Lithium (Li) EPA 200.7 UCMR5	Lithium	BPQL ug/L		9.00	03/16/24 07:05 LF	03/16/24 14:50 LF
Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	BPQL ug/L		0.00580	03/07/24 08:14 HDM	03/11/24 14:20 CHC
Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	BPQL ug/L		0.00470	03/07/24 08:14 HDM	03/11/24 14:20 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorobutanoic acid (PFBA)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	BPQL ug/L		0.00650	03/07/24 08:14 HDM	03/11/24 14:20 CHC
Perfluorinated Comps by EPA 533 UCMR5	PFMPA	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanoic acid (PFPeA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	BPQL ug/L		0.00714	03/07/24 08:14 HDM	03/11/24 14:20 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorobutanesulfonic acid (PFBS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	PFMBA	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	NFDHA	BPQL ug/L		0.0179	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2FTS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorohexanoic acid (PFHxA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanesulfonic acid (PFPeS)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	hexafluoropropylene oxide dimer acid (HFPO-DA)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluoroheptanoic acid (PFHpA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorohexanesulfonic acid (PFHxS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2FTS)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:52 CHC

Sample:

Location Code:

PWSID#:

Collection Type: Grab

Sample Time: 3/6/24 11:35

Lab Log# GC06152-03

Method/Parameter	Test	Result	Notes	PQL#	Prep Info	Analysis Info
Perfluorinated Comps by EPA 533 UCMR5	Perfluorooctanoic acid (PFOA)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluoroheptanesulfonic acid (PFHpS)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorooctanesulfonic acid (PFOS)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluorononanoic acid (PFNA)	BPQL ug/L		0.00357	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	9Cl-PF3ONS	BPQL ug/L		0.00179	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2FTS)	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorodecanoic acid (PFDA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	Perfluoroundecanoic acid (PFUnA)	BPQL ug/L		0.00179	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	11Cl-PF3OUdS	BPQL ug/L		0.00446	03/13/24 08:22 HDM	03/14/24 04:52 CHC
Perfluorinated Comps by EPA 533 UCMR5	perfluorododecanoic acid (PFDoA)	BPQL ug/L		0.00268	03/13/24 08:22 HDM	03/14/24 04:52 CHC

### Notes and Definitions

MCL Analyte concentration may exceed Maximum Contaminant Limit (MCL) for EPA Primary or Secondary Drinking Water Regulations.

### Analyte concentration may exceed regulatory limit.

PQL Practical Quantitation Limit - the method reporting limit (MRL) adjusted for any dilutions or other changes made to the sample to deal with interferences/matrix effects

BPQL Below Practical Quantitation Limit (if applicable).

The "Prep Date" of the QC analysis coincides with the characters of the appropriate QC Lab ID. (Example: 19 A 02 15 - BLK = 2019, Jan 2, Batch #15 - Blank)

Lab Manager



## Blank Data

QC Lab #	Test Group	Test	Result	PQL	Flags
24C1601-BLK1	Lithium (Li) EPA 200.7 UCMR5	Lithium	BPQL ug/L	9.00	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	BPQL ug/L	0.00600	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	BPQL ug/L	0.00500	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluorobutanoic acid (PFBA)	BPQL ug/L	0.00500	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	BPQL ug/L	0.00700	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	PFMPA	BPQL ug/L	0.00400	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanoic acid (PFPeA)	BPQL ug/L	0.00300	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	BPQL ug/L	0.00800	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorobutanesulfonic acid (PFBS)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	PFMBA	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	NFDHA	BPQL ug/L	0.0200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2FTS)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluorohexanoic acid (PFHxA)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanesulfonic acid (PFPeS)	BPQL ug/L	0.00400	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	hexafluoropropylene oxide dimer acid (HFPO-DA)	BPQL ug/L	0.00500	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	Perfluoroheptanoic acid (PFHpA)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorohexanesulfonic acid (PFHxS)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2FTS)	BPQL ug/L	0.00500	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorooctanoic acid (PFOA)	BPQL ug/L	0.00400	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluoroheptanesulfonic acid (PFHpS)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluorooctanesulfonic acid (PFOS)	BPQL ug/L	0.00400	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorononanoic acid (PFNA)	BPQL ug/L	0.00400	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	9Cl-PF3ONS	BPQL ug/L	0.00200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2FTS)	BPQL ug/L	0.00500	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluorodecanoic acid (PFDA)	BPQL ug/L	0.00300	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	Perfluoroundecanoic acid (PFUnA)	BPQL ug/L	0.00200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	11Cl-PF3OUdS	BPQL ug/L	0.00500	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	perfluorododecanoic acid (PFDoA)	BPQL ug/L	0.00300	

## Laboratory Control Sample Data

Lab QC#	Test Group	Test Name	LCS Result	Spike Level	Units	% Rec.	Control Limits	Flags
24C1601-BS1	Lithium (Li) EPA 200.7 UCMR5	Lithium	8.90	9.000	ug/L	99	85 - 115	
24C1601-BS2	Lithium (Li) EPA 200.7 UCMR5	Lithium	41.5	39.96	ug/L	104	85 - 115	
24C0712-CCV1	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	0.00513	0.005000	ug/L	103	70 - 130	
24C0712-CCV1	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	0.00533	0.005000	ug/L	107	70 - 130	
24C0712-CCV1	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	0.00503	0.005000	ug/L	101	70 - 130	
24C0712-CCV1	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	0.00507	0.005000	ug/L	101	70 - 130	
24C0712-CCV2	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	0.0405	0.04000	ug/L	101	70 - 130	
24C0712-CCV2	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	0.0405	0.04000	ug/L	101	70 - 130	
24C0712-CCV2	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	0.0411	0.04000	ug/L	103	70 - 130	
24C0712-CCV2	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	0.0400	0.04000	ug/L	100	70 - 130	
24C0712-CCV3	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	0.0800	0.08000	ug/L	100	70 - 130	
24C0712-CCV3	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	0.0803	0.08000	ug/L	100	70 - 130	
24C0712-CCV3	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	0.0782	0.08000	ug/L	98	70 - 130	
24C0712-CCV3	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	0.0782	0.08000	ug/L	98	70 - 130	
24C0712-CCV4	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	0.00520	0.005000	ug/L	104	70 - 130	
24C0712-CCV4	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	0.00514	0.005000	ug/L	103	70 - 130	
24C0712-CCV4	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	0.00487	0.005000	ug/L	97	70 - 130	
24C0712-CCV4	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	0.00496	0.005000	ug/L	99	70 - 130	
24C0712-CCV5	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	0.0399	0.04000	ug/L	100	70 - 130	
24C0712-CCV5	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	0.0405	0.04000	ug/L	101	70 - 130	
24C0712-CCV5	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	0.0415	0.04000	ug/L	104	70 - 130	
24C0712-CCV5	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	0.0404	0.04000	ug/L	101	70 - 130	
24C0712-MRL1	Perfluorinated Comps by EPA 537.1 UCMR5	NMeFOSAA	0.00478	0.005000	ug/L	96	50 - 150	
24C0712-MRL1	Perfluorinated Comps by EPA 537.1 UCMR5	NEtFOSAA	0.00473	0.005000	ug/L	95	50 - 150	
24C0712-MRL1	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotridecanoic acid (PFTrDA)	0.00510	0.005000	ug/L	102	50 - 150	
24C0712-MRL1	Perfluorinated Comps by EPA 537.1 UCMR5	perfluorotetradecanoic acid (PFTA)	0.00540	0.005000	ug/L	108	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluorobutanoic acid (PFBA)	0.00503	0.005000	ug/L	101	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	PFMPA	0.00396	0.004000	ug/L	99	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanoic acid (PFPeA)	0.00249	0.002000	ug/L	124	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorobutanesulfonic acid (PFBS)	0.00198	0.001776	ug/L	111	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	PFMBA	0.00203	0.002000	ug/L	101	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluoro(2-ethoxyethane) sulfonic acid (PFEEESA)	0.00191	0.001784	ug/L	107	50 - 150	

## Laboratory Control Sample Data (cont'd)

Lab QC#	Test Group	Test Name	LCS Result	Spike Level	Units	% Rec.	Control Limits	Flags
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	NFDHA	0.0189	0.02000	ug/L	94	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2FTS)	0.00186	0.001876	ug/L	99	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluorohexanoic acid (PFHxA)	0.00210	0.002000	ug/L	105	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluoropentanesulfonic acid (PFPeS)	0.00197	0.001880	ug/L	105	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	hexafluoropropylene oxide dimer acid (HFPO-DA)	0.00537	0.005000	ug/L	107	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	Perfluoroheptanoic acid (PFHpA)	0.00240	0.002000	ug/L	120	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	0.00195	0.001892	ug/L	103	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorohexanesulfonic acid (PFHxS)	0.00207	0.001824	ug/L	114	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2FTS)	0.00578	0.004760	ug/L	121	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorooctanoic acid (PFOA)	0.00465	0.004000	ug/L	116	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluoroheptanesulfonic acid (PFHpS)	0.00206	0.001908	ug/L	108	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluorooctanesulfonic acid (PFOS)	0.00208	0.001856	ug/L	112	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	Perfluorononanoic acid (PFNA)	0.00203	0.002000	ug/L	101	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	9Cl-PF3ONS	0.00196	0.001868	ug/L	105	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2FTS)	0.00210	0.001920	ug/L	109	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluorodecanoic acid (PFDA)	0.00208	0.002000	ug/L	104	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	Perfluoroundecanoic acid (PFUnA)	0.00216	0.002000	ug/L	108	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	11Cl-PF3OUdS	0.00170	0.001888	ug/L	90	50 - 150	
24C1315-MRL1	Perfluorinated Comps by EPA 533 UCMR5	perfluorododecanoic acid (PFDoA)	0.00212	0.002000	ug/L	106	50 - 150	

## Quality Control Data

## Surrogate Recovery Data

QC Lab#	Test Group	Test Name	% Recovery	Recovery Limits	Flags
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] decanesulfonate (M2-8:2FTS)	99	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] hexanesulfonate (M2-4:2FTS)	107	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] octanesulfonate (M2-6:2FTS)	104	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C2-PF [1,2]dodecanoic acid (MPFDoA)	83	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C3-NaPF 1-[1,2,3] hexanesulfonate (M3PFHxS)	94	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C3-NaPF 1-[2,3,4] butanesulfonate (M3PFBS)	100	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C3-PF 2-methyl-3-oxahexanoic acid (M3HFPO-DA)	78	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C4-PF [1,2,3,4] heptanoic acid (M4PFHpA)	94	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C4-PF butanoic acid (MPFBA)	84	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C5-PF [1,2,3,4,6] hexanoic acid (M5PFHxA)	90	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C5-PF pentanoic acid (M5PFPeA)	84	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C6-PF [1,2,3,4,5,6] decanoic acid (M6PFDA)	97	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C7-PF [1,2,3,4,5,6,7] undecanoic acid (M7PFUdA)	93	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C8-NaPF 1-octanesulfonate (M8PFOS)	94	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C8-PF octanoic acid (M8PFOA)	96	50 - 200	
24C1315-BLK1	Perfluorinated Comps by EPA 533 UCMR5	13C9-PF nonanoic acid (M9PFNA)	98	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] decanesulfonate (M2-8:2FTS)	90	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] hexanesulfonate (M2-4:2FTS)	114	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] octanesulfonate (M2-6:2FTS)	103	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C2-PF [1,2]dodecanoic acid (MPFDoA)	77	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C3-NaPF 1-[1,2,3] hexanesulfonate (M3PFHxS)	96	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C3-NaPF 1-[2,3,4] butanesulfonate (M3PFBS)	89	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C3-PF 2-methyl-3-oxahexanoic acid (M3HFPO-DA)	66	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C4-PF [1,2,3,4] heptanoic acid (M4PFHpA)	89	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C4-PF butanoic acid (MPFBA)	86	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C5-PF [1,2,3,4,6] hexanoic acid (M5PFHxA)	85	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C5-PF pentanoic acid (M5PFPeA)	94	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C6-PF [1,2,3,4,5,6] decanoic acid (M6PFDA)	85	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C7-PF [1,2,3,4,5,6,7] undecanoic acid (M7PFUdA)	82	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C8-NaPF 1-octanesulfonate (M8PFOS)	92	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C8-PF octanoic acid (M8PFOA)	89	50 - 200	
GC06152-01	Perfluorinated Comps by EPA 533 UCMR5	13C9-PF nonanoic acid (M9PFNA)	89	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] decanesulfonate (M2-8:2FTS)	84	50 - 200	



**Quality Control Data**

**Test results performed meet all method and TNI requirements unless otherwise noted.**

GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] hexanesulfonate (M2-4:2FTS)	123	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C2-NaPF 1-[1,2] octanesulfonate (M2-6:2FTS)	94	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C2-PF [1,2]dodecanoic acid (MPFDoA)	76	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C3-NaPF 1-[1,2,3] hexanesulfonate (M3PFHxS)	88	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C3-NaPF 1-[2,3,4] butanesulfonate (M3PFBS)	95	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C3-PF 2-methyl-3-oxahexanoic acid (M3HFPO-DA)	71	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C4-PF [1,2,3,4] heptanoic acid (M4PFHpA)	88	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C4-PF butanoic acid (MPFBA)	99	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C5-PF [1,2,3,4,6] hexanoic acid (M5PFHxA)	89	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C5-PF pentanoic acid (M5PFPeA)	105	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C6-PF [1,2,3,4,5,6] decanoic acid (M6PFDA)	77	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C7-PF [1,2,3,4,5,6,7] undecanoic acid (M7PFUdA)	80	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C8-NaPF 1-octanesulfonate (M8PFOS)	80	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C8-PF octanoic acid (M8PFOA)	74	50 - 200	
GC06152-03	Perfluorinated Comps by EPA 533 UCMR5	13C9-PF nonanoic acid (M9PFNA)	73	50 - 200	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	13C3-PF 2-methyl-3-oxahexanoic acid (M3HFPO-DA)	100	70 - 130	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	13C-PFDA	105	70 - 130	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	13C-PFHxA	107	70 - 130	
24C0712-BLK1	Perfluorinated Comps by EPA 537.1 UCMR5	d5-PF N-ethyl-1-octanesulfonamidoAA (d5-N-EtFOSAA)	91	70 - 130	
GC06152-01	Perfluorinated Comps by EPA 537.1 UCMR5	13C3-PF 2-methyl-3-oxahexanoic acid (M3HFPO-DA)	89	70 - 130	
GC06152-01	Perfluorinated Comps by EPA 537.1 UCMR5	13C-PFDA	95	70 - 130	
GC06152-01	Perfluorinated Comps by EPA 537.1 UCMR5	13C-PFHxA	94	70 - 130	
GC06152-01	Perfluorinated Comps by EPA 537.1 UCMR5	d5-PF N-ethyl-1-octanesulfonamidoAA (d5-N-EtFOSAA)	88	70 - 130	
GC06152-03	Perfluorinated Comps by EPA 537.1 UCMR5	13C3-PF 2-methyl-3-oxahexanoic acid (M3HFPO-DA)	98	70 - 130	
GC06152-03	Perfluorinated Comps by EPA 537.1 UCMR5	13C-PFDA	108	70 - 130	
GC06152-03	Perfluorinated Comps by EPA 537.1 UCMR5	13C-PFHxA	100	70 - 130	
GC06152-03	Perfluorinated Comps by EPA 537.1 UCMR5	d5-PF N-ethyl-1-octanesulfonamidoAA (d5-N-EtFOSAA)	100	70 - 130	

\* Complete Entire COC to be in Compliance\*

RUSH Due Date



# Chain of Custody

Client Name- **Lawton**  
Project Name- **UCMR5**

Accurate Work Order #	Date Sample Taken	Time Sample Taken	Matrix or Source (Refer. below)	Grab (G) or Comp (C)	SP ID	SP Name	Sampling Event	Analysis Requested →  # of Container ↓	500ml HNO3	250ml PP Amm Ace 4C	250ml PP Trizma 4C				
									UCMR5 Lithium	UCMR5 PFAS 533	UCMR5 PFAS 537.1				
GC06152															
01	3.6.24	1025	DW	G	TP002	TP002	SE2	9	1	4	4				
02	3.6.24	1020	DW	G		Field Blank for TP002	SE2	3		2	1				
03	3.6.24	1135	DW	G	TP003	TP003	SE2	9	1	4	4				
04	3.6.24	1132	DW	G		Field Blank for TP003	SE2	3		2	1				

On-Site Info

Comments

-- All samples are scheduled to be disposed of in 4 weeks of receipt at Accurate.--

Certification by Company Official: I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above facility. Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Sampled By: \_\_\_\_\_ Company: \_\_\_\_\_ Sample Method: \_\_\_\_\_

Relinquished By: *David A. Correll* Date/Time: *03/06/24 1410* Received By: *Michelle Soule* Date/Time: *3/6/24 1410*  
 Relinquished to Lab By: *Michelle Soule* Date/Time: *3/6/24 1905* Received at Lab By: *Michelle Soule* Rec'd °C: *ice 5.1°* Date/Time: *3-6-24 1905*  
 Rel'd to Log-In Fridge By: \_\_\_\_\_

Reporting Requirements (standard 10-15 working days) Compliance Reporting?  Yes or No (DMR, PWS, UCMR4) PWS ID # **OK1011303** RUSH Request (if available) \_\_\_\_\_ (Working Days)

Mail Report To: \_\_\_\_\_ Address: \_\_\_\_\_ Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_ Email: [Jeffrey.dorrell@lawtonok.gov](mailto:Jeffrey.dorrell@lawtonok.gov)  
 Mail Invoice To: \_\_\_\_\_ Address: \_\_\_\_\_ PO #: \_\_\_\_\_ Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Bid # - \_\_\_\_\_  
 Jeffrey.dorrell@lawtonok.gov

[www.accuratelabs.com](http://www.accuratelabs.com) (800) 516-5227 505 South Lowry Street Stillwater, OK 74074 Phone: (405) 372-5300 Fax: (405) 372-5396  
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