



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc.
has assessed the Organization of:

Merit Laboratories, Inc
2680 East Lansing Drive, East Lansing, MI 48823

(Hereinafter called the Organization) and hereby declares that Organization has met the requirements of ISO/IEC 17025:2017 General Requirements for the competence of Testing and Calibration Laboratories and the United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP) requirements identified within the DoD/DOE Quality Systems Manual (DoD/DOE QSM) Version 5.4 October 2021 and is accredited in accordance with the:

United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP)

This accreditation demonstrates the technical competence for the defined scope and the operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Environmental Testing ***(As detailed in the supplement)***

Accreditation claims for such activities shall only be made from the addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation Body's duty to observe and comply with the said rules.

For PJLA

Tracy Szorszen
President

Initial Accreditation Date:

November 18, 2011

Issue Date:

December 30, 2022

Expiration Date

December 31, 2024

Revision Date:

September 03, 2023

Accreditation No:

69699

Certificate No:

L22-895-R2

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjllabs.com



Certificate of Accreditation: Supplement

Merit Laboratories, Inc

2680 East Lansing Drive, East Lansing, MI 48823
Contact Name: Maya Murshak Phone: 517-332-0167

Accreditation is granted to the facility to perform the following testing:

Code

General Chemistry

ASTM D2216A by Gravimetry	30025106
Solid	
Percent Solid	1950
EPA 335.4 by Colorimetry	10061402
Aqueous	
Cyanide (Total)	1645
EPA 9045D by Ion Selective Electrode (ISE)	10198455
Solid	
pH (Corrosivity)	1625
SM 2340B (2011) by Gravimetry	20046611
Aqueous	
Hardness (as CaCO ₃)	1550
SM 2540C (2015) by Gravimetry	20050457
Aqueous	
Solids (Total Dissolved, TDS, Residue, Filterable)	1955
SM 2540D (2015) by Gravimetry	20051223
Aqueous	
Solids (Total Suspended, TSS, Non-Filterable Residue)	1960
SM 4500 H+B (2011) by Ion Selective Electrode (ISE)	20105220
Aqueous	
pH	1900
SM 4500 S2 D (2011) by Spectrophotometry	20125604
Aqueous	
Sulfide	2010
Solid	
Sulfide	2010
Inorganic	
EPA 200.8 by Inductively Coupled Plasma Mass Spectrometry (ICP/MS)	10014605
Aqueous	
Aluminum	1000
Antimony	1005
Arsenic	1010
Barium	1015
Beryllium	1020
Boron	1025
Cadmium	1030
Chromium	1040
Cobalt	1050



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Inorganic

EPA 200.8 by Inductively Coupled Plasma Mass Spectrometry (ICP/MS)	10014605
Aqueous	
Copper	1055
Iron	1070
Lead	1075
Magnesium	1085
Manganese	1090
Molybdenum	1100
Nickel	1105
Potassium	1125
Selenium	1140
Silver	1150
Sodium	1155
Thallium	1165
Tin	1175
Titanium	1180
Vanadium	1185
Zinc	1190
EPA 245.1 by Cold Vapor Atomic Absorption Spectrophotometry (CVAAS)	10036609
Aqueous	
Mercury	1095
EPA 300.0 by Ion Chromatography (IC)	10053200
Aqueous	
Bromide	1540
Chloride	1575
Fluoride	1730
Nitrate (as N)	1810
Nitrite (as N)	1840
Sulfate	2000
EPA 6020A by Inductively Coupled Plasma Mass Spectrometry (ICP/MS)	10156408
Aqueous	
Aluminum	1000
Antimony	1005
Arsenic	1010
Barium	1015
Beryllium	1020
Boron	1025
Cadmium	1030



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Code

Inorganic

EPA 6020A by Inductively Coupled Plasma Mass Spectrometry (ICP/MS) 10156408

Aqueous

Calcium	1035
Chromium	1040
Cobalt	1050
Copper	1055
Iron	1070
Lead	1075
Magnesium	1085
Manganese	1090
Molybdenum	1100
Nickel	1105
Potassium	1125
Selenium	1140
Silver	1150
Sodium	1155
Strontium	1160
Thallium	1165
Vanadium	1185
Zinc	1190

Solid

Aluminum	1000
Antimony	1005
Arsenic	1010
Barium	1015
Beryllium	1020
Boron	1025
Cadmium	1030
Chromium	1040
Cobalt	1050
Copper	1055
Iron	1070
Lead	1075
Lithium	1080
Magnesium	1085
Manganese	1090
Molybdenum	1100
Nickel	1105



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Inorganic	
EPA 6020A by Inductively Coupled Plasma Mass Spectrometry (ICP/MS)	10156408
Solid	
Potassium	1125
Selenium	1140
Silver	1150
Sodium	1155
Strontium	1160
Thallium	1165
Tin	1175
Titanium	1180
Vanadium	1185
Zinc	1190
EPA 7196A by Colorimetry	10162400
Solid	
Hexavalent Chromium (Cr VI)	1045
EPA 7471B by Cold Vapor Atomic Absorption Spectrophotometry (CVAAS)	10166457
Solid	
Mercury	1095
SM 3500 Cr D (2011) by Hach Test Method	20066017
Aqueous	
Hexavalent Chromium (Cr VI)	1045
Organic	
Draft EPA Method 1633 (Draft 3) by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS)	10123441
Aqueous	
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	9490
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	9338
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	9340
3-Perfluoropropyl propanoic acid (3:3 FTCA)	9353
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	6951
4:2 Fluorotelomersulfonic acid (4:2FTS)	6946
6:2 Fluorotelomersulfonic acid (6:2FTS)	6947
8:2 Fluorotelomersulfonic acid (8:2FTS)	6948
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	6952
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9460
N-ethylperfluorooctanesulfonamide (EtFOSA)	9395
N-ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA)	4847
N-ethylperfluorooctanesulfonamidoethanol (EtFOSE)	9431
N-methylperfluorooctanesulfonamide (MeFOSA)	9433



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Organic

Draft EPA Method 1633 (Draft 3) by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS) 10123441

Aqueous

N-methylperfluorooctanesulfonamidoacetic acid (MeFOSAA)	4846
N-methylperfluorooctanesulfonamidoethanol (MeFOSE)	6949
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6956
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6957
Perfluoro-3-methoxypropanoic acid (PFMPA)	6965
Perfluoro-4-methoxybutanoic acid (PFMBA)	6966
Perfluorobutanesulfonic acid (PFBS)	6918
Perfluorobutanoic acid (PFBA)	6915
Perfluorodecanesulfonic acid (PFDS)	6920
Perfluorodecanoic acid (PFDA)	6905
Perfluorododecanesulfonic acid (PFDoS)	6923
Perfluorododecanoic acid (PFDoA)	6903
Perfluoroheptanesulfonic acid (PFHpS)	9470
Perfluoroheptanoic acid (PFHpA)	6908
Perfluorohexanesulfonic acid (PFHxS)	6927
Perfluorohexanoic acid (PFHxA)	6913
Perfluorononanesulfonic acid (PFNS)	6929
Perfluorononanoic acid (PFNA)	6906
Perfluorooctanesulfonamide (PFOSA)	6917
Perfluorooctanesulfonic acid (PFOS)	6931
Perfluorooctanoic acid (PFOA)	6912
Perfluoropentanesulfonic acid (PFPeS)	6934
Perfluoropentanoic acid (PFPeA)	6914
Perfluorotetradecanoic acid (PFTeDA)	6902
Perfluorotridecanoic acid (PFTrDA)	9563
Perfluoroundecanoic acid (PFUnA)	6904

Solid

11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	9490
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	9338
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	9340
3-Perfluoropropyl propanoic acid (3:3 FTCA)	9353
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	6951
4:2 Fluorotelomersulfonic acid (4:2FTS)	6946
6:2 Fluorotelomersulfonic acid (6:2FTS)	6947
8:2 Fluorotelomersulfonic acid (8:2FTS)	6948
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	6952



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Organic	
Draft EPA Method 1633 (Draft 3) by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS)	10123441
Solid	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9460
N-ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA)	4847
N-ethylperfluorooctanesulfonamidoethanol (EtFOSE)	9431
N-methylperfluorooctanesulfonamide (MeFOSA)	9433
N-methylperfluorooctanesulfonamidoacetic acid (MeFOSAA)	4846
N-methylperfluorooctanesulfonamidoethanol (MeFOSE)	6949
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6956
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	6957
Perfluoro-3-methoxypropanoic acid (PFMPA)	6965
Perfluoro-4-methoxybutanoic acid (PFMBA)	6966
Perfluorobutanesulfonic acid (PFBS)	6918
Perfluorobutanoic acid (PFBA)	6915
Perfluorodecanesulfonic acid (PFDS)	6920
Perfluorodecanoic acid (PFDA)	6905
Perfluorododecanesulfonic acid (PFDoS)	6923
Perfluorododecanoic acid (PFDoA)	6903
Perfluoroheptanesulfonic acid (PFHpS)	9470
Perfluoroheptanoic acid (PFHpA)	6908
Perfluorohexanesulfonic acid (PFHxS)	6927
Perfluorohexanoic acid (PFHxA)	6913
Perfluorononanesulfonic acid (PFNS)	6929
Perfluorononanoic acid (PFNA)	6906
Perfluorooctanesulfonamide (PFOSA)	6917
Perfluorooctanesulfonic acid (PFOS)	6931
Perfluorooctanoic acid (PFOA)	6912
Perfluoropentanesulfonic acid (PFPeS)	6934
Perfluoropentanoic acid (PFPeA)	6914
Perfluorotetradecanoic acid (PFTeDA)	6902
Perfluorotridecanoic acid (PFTrDA)	9563
Perfluoroundecanoic acid (PFUnA)	6904
EPA 537.1 by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS)	10091642
Drinking Water	
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	9490
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	6951
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid (9-Cl-PF3ONS)	6952
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) – GenX	9460



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Code

Organic	
EPA 537.1 by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS)	10091642
Drinking Water	
n-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	4846
n-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	4847
Perfluorobutane Sulfonic Acid (PFBS)	6918
Perfluorodecanoic Acid (PFDA)	6905
Perfluorododecanoic Acid (PFDoA)	6903
Perfluoroheptanoic Acid (PFHpA)	6908
Perfluorohexane Sulfonic Acid (PFHxS)	6927
Perfluorohexanoic Acid (PFHxA)	6913
Perfluorononanoic Acid (PFNA)	6906
Perfluorooctane Sulfonic Acid (PFOS)	6931
Perfluorooctanoic Acid (PFOA)	6912
Perfluorotetradecanoic Acid (PFTA)	6902
Perfluorotridecanoic Acid (PFTrDA)	9563
Perfluoroundecanoic Acid (PFUnDA)	6904
EPA 8081B by Gas Chromatography Electron Capture Detector (GC/ECD)	10178811
Aqueous	
4,4'-DDD	7355
4,4'-DDE	7360
4,4'-DDT	7365
Aldrin	7025
alpha-BHC (a-BHC, alpha-Hexachlorocyclohexane)	7110
alpha-Chlordane (cis-Chlordane)	7240
beta-BHC (b-BHC, beta-Hexachlorocyclohexane)	7115
Chlordane (Technical)	7250
delta-BHC (d-BHC)	7105
Dieldrin	7470
Endosulfan I	7510
Endosulfan II	7515
Endosulfan Sulfate	7520
Endrin	7540
Endrin Aldehyde	7530
Endrin Ketone	7535
gamma-BHC (γ-BHC, Lindane, gamma-Hexachlorocyclohexane)	7120
gamma-Chlordane	7245
Methoxychlor	7810
Toxaphene (Chlorinated Camphene)	8250



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Code

Organic

EPA 8081B by Gas Chromatography Electron Capture Detector (GC/ECD) 10178811

Solid	
4,4'-DDD	7355
4,4'-DDE	7360
4,4'-DDT	7365
Aldrin	7025
alpha-BHC (a-BHC, alpha-Hexachlorocyclohexane)	7110
alpha-Chlordane (cis-Chlordane)	7240
beta-BHC (b-BHC, beta-Hexachlorocyclohexane)	7115
Chlordane (Technical)	7250
delta-BHC (d-BHC)	7105
Dieldrin	7470
Endosulfan I	7510
Endosulfan II	7515
Endosulfan Sulfate	7520
Endrin	7540
Endrin Aldehyde	7530
Endrin Ketone	7535
gamma-BHC (γ -BHC, Lindane, gamma-Hexachlorocyclohexane)	7120
gamma-Chlordane	7245
Heptachlor	7685
Heptachlor Epoxide (beta)	7690
Methoxychlor	7810
Toxaphene (Chlorinated Camphene)	8250

EPA 8082A by Gas Chromatography Electron Capture Detector (GC/ECD) 10179201

Aqueous	
Aroclor 1016	8880
Aroclor 1221	8885
Aroclor 1232	8890
Aroclor 1242	8895
Aroclor 1248	8900
Aroclor 1254	8905
Aroclor 1260	8910
Solid	
Aroclor 1016	8880
Aroclor 1221	8885
Aroclor 1232	8890
Aroclor 1242	8895



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Code

Organic	
EPA 8082A by Gas Chromatography Electron Capture Detector (GC/ECD)	10179201
Solid	
Aroclor 1248	8900
Aroclor 1254	8905
Aroclor 1260	8910
EPA 8260C by Gas Chromatography Mass Spectrometry (GC/MS)	10307003
Aqueous	
1,1,1,2-Tetrachloroethane	5105
1,1,1-Trichloroethane	5160
1,1,2,2-Tetrachloroethane	5110
1,1,2-Trichloro-1,2,2-Trifluoroethane (Trichlorotrifluoroethane, Freon 113)	5185
1,1,2-Trichloroethane	5165
1,1-Dichloroethane	4630
1,1-Dichloroethylene	4640
1,1-Dichloropropene	4670
1,2,3-Trichlorobenzene	5150
1,2,3-Trichloropropane (TCP)	5180
1,2,4-Trichlorobenzene	5155
1,2-Dibromo-3-Chloropropane (DBCP)	4570
1,2-Dibromoethane (EDB, Ethylene Dibromide)	4585
1,2-Dichlorobenzene	4610
1,2-Dichloroethane (Ethylene Dichloride, EDC)	4635
1,2-Dichloropropane	4655
1,3,5-Trimethylbenzene	5215
1,3-Dichlorobenzene	4615
1,3-Dichloropropene (Total)	4675
1,4-Dichlorobenzene	4620
1,4-Dioxane (1,4-Diethyleneoxide, p-Dioxane)	4735
2,2-Dichloropropane	4665
2-Butanone (Methyl Ethyl Ketone, MEK)	4410
2-Chloroethyl Vinyl Ether (2-CEVE)	4500
2-Hexanone (Methyl Butyl Ketone, MBK)	4860
4-Isopropyltoluene (p-Isopropyltoluene, p-Cymene)	4910
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone (MIBK), Hexone)	4995
Acetone	4315
Acrolein (propenal)	4325
Acrylonitrile	4340
Benzene	4375



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EPA 8260C by Gas Chromatography Mass Spectrometry (GC/MS)	10307003
Aqueous	
Bromobenzene	4385
Bromochloromethane	4390
Bromodichloromethane	4395
Bromoform	4400
Carbon Disulfide	4450
Carbon Tetrachloride	4455
Chlorobenzene	4475
Chlorodibromomethane (Dibromochloromethane)	4575
Chloroethane (Ethyl Chloride)	4485
Chloroform	4505
cis-1,2-Dichloroethylene	4645
cis-1,3-Dichloropropene	4680
Cyclohexane	4555
Dibromomethane (Methylene Bromide)	4595
Dichlorodifluoromethane (Freon 12)	4625
Diethyl Ether	4725
Ethyl Acetate	4755
Ethylbenzene	4765
Hexachlorobutadiene	4835
Iodomethane (Methyl Iodide)	4870
Isobutyl Alcohol (2-Methyl-1-Propanol, Isobutanol)	4875
Isopropylbenzene (Cumene)	4900
Methyl Acetate	4940
Methyl Bromide (Bromomethane)	4950
Methyl Chloride (Chloromethane)	4960
Methyl tert-Butyl Ether (MTBE)	5000
Methylcyclohexane	4965
Methylene Chloride (Dichloromethane)	4975
Naphthalene	5005
n-Butylbenzene	4435
n-Propylbenzene (1-phenylpropane)	5090
o-Xylene (1,2-Xylene)	5250
sec-Butylbenzene	4440
Styrene	5100
tert-Butylbenzene	4445
Tetrachloroethylene (Perchloroethylene, PCE)	5115



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Organic

EPA 8260C by Gas Chromatography Mass Spectrometry (GC/MS) 10307003

Aqueous

Toluene 5140

Total Petroleum Hydrocarbons Gasoline Range Organics (TPH GRO) (C6 – C10) 9408

trans-1,2-Dichloroethylene 4700

trans-1,3-Dichloropropylene 4685

trans-1,4-Dichloro-2-Butene 4605

Trichloroethene (TCE, Trichloroethylene) 5170

Trichlorofluoromethane (Fluorotrichloromethane, Freon 11) 5175

Vinyl Acetate 5225

Vinyl Chloride (Chloroethene) 5235

Xylenes (Total) 5260

Solid

1,1,1-Trichloroethane 5160

1,1,2,2-Tetrachloroethane 5110

1,1,2-Trichloro-1,2,2-Trifluoroethane (Trichlorotrifluoroethane, Freon 113) 5185

1,1,2-Trichloroethane 5165

1,1-Dichloroethane 4630

1,1-Dichloroethylene 4640

1,1-Dichloropropene 4670

1,2,3-Trichlorobenzene 5150

1,2-Dichlorobenzene 4610

1,2-Dichloroethane (Ethylene Dichloride, EDC) 4635

1,2-Dichloropropane 4655

1,3,5-Trimethylbenzene 5215

1,3-Dichlorobenzene 4615

1,3-Dichloropropene (Total) 4675

1,4-Dichlorobenzene 4620

1,4-Dioxane (1,4-Diethyleneoxide, p-Dioxane) 4735

2,2-Dichloropropane 4665

2-Chloroethyl Vinyl Ether (2-CEVE) 4500

2-Chlorotoluene 4535

4-Chlorotoluene (p-Chlorotoluene) 4540

4-Isopropyltoluene (p-Isopropyltoluene, p-Cymene) 4910

Acetone 4315

Acrolein (propenal) 4325

Acrylonitrile 4340

Benzene 4375



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Code

Organic	
EPA 8260C by Gas Chromatography Mass Spectrometry (GC/MS)	10307003
Solid	
Bromobenzene	4385
Bromochloromethane	4390
Bromodichloromethane	4395
Carbon Disulfide	4450
Carbon Tetrachloride	4455
Chlorodibromomethane (Dibromochloromethane)	4575
Chloroethane (Ethyl Chloride)	4485
Chloroform	4505
cis-1,3-Dichloropropene	4680
Cyclohexane	4555
Dichlorodifluoromethane (Freon 12)	4625
Diethyl Ether	4725
Ethyl Acetate	4755
Ethylbenzene	4765
Iodomethane (Methyl Iodide)	4870
Isobutyl Alcohol (2-Methyl-1-Propanol, Isobutanol)	4875
Isopropylbenzene (Cumene)	4900
m,p-Xylene	5240
Methyl Acetate	4940
Methyl Bromide (Bromomethane)	4950
Methyl Chloride (Chloromethane)	4960
Methylcyclohexane	4965
Methylene Chloride (Dichloromethane)	4975
Naphthalene	5005
n-Butylbenzene	4435
n-Propylbenzene (1-phenylpropane)	5090
o-Xylene (1,2-Xylene)	5250
sec-Butylbenzene	4440
tert-Butylbenzene	4445
Tetrachloroethylene (Perchloroethylene, PCE)	5115
Toluene	5140
Total Petroleum Hydrocarbons Gasoline Range Organics (TPH GRO) (C6 – C10)	9408
trans-1,3-Dichloropropylene	4685
trans-1,4-Dichloro-2-Butene	4605
Trichloroethene (TCE, Trichloroethylene)	5170
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	5175



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Organic

EPA 8260C by Gas Chromatography Mass Spectrometry (GC/MS)

10307003

Solid

Vinyl Acetate	5225
Vinyl Chloride (Chloroethene)	5235
Xylenes (Total)	5260

EPA 8270D by Gas Chromatography Mass Spectrometry (GC/MS)

10186002

Aqueous

1,1'-Biphenyl (BZ-0, Biphenyl)	6703
1,2,4,5-Tetrachlorobenzene	6715
1,2,4-Trichlorobenzene	5155
1,2-Dichlorobenzene	4610
1,3-Dichlorobenzene	4615
1,3-Dinitrobenzene (1,3-DNB)	6160
1,4-Dichlorobenzene	4620
1-Methylnaphthalene	6380
2,2-Oxybis(1-Chloropropane)	4659
2,3,4,6-Tetrachlorophenol	6735
2,4,5-Trichlorophenol	6835
2,4,6-Trichlorophenol	6840
2,4-Dichlorophenol	6000
2,4-Dimethylphenol	6130
2,4-Dinitrophenol	6175
2,4-Dinitrotoluene (2,4-DNT)	6185
2,6-Dichlorophenol	6005
2,6-Dinitrotoluene (2,6-DNT)	6190
2-Chloronaphthalene	5795
2-Chlorophenol	5800
2-Methyl-4,6-Dinitrophenol (4,6-Dinitro-2-Methylphenol)	6360
2-Methylnaphthalene	6385
2-Methylphenol (o-Cresol)	6400
2-Nitroaniline	6460
2-Nitrophenol	6490
3,3'-Dichlorobenzidine	5945
3-Methylphenol (m-Cresol)	6405
3-Nitroaniline	6465
4-Bromophenyl Phenyl Ether (BDE-3)	5660
4-Chloro-3-Methylphenol	5700
4-Chloroaniline	5745



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2680 East Lansing Drive, East Lansing, MI 48823
Contact Name: Maya Murshak Phone: 517-332-0167

Accreditation is granted to the facility to perform the following testing:

Code

Organic	
EPA 8270D by Gas Chromatography Mass Spectrometry (GC/MS)	10186002
Aqueous	
4-Chlorophenyl Phenylether	5825
4-Methylphenol (p-Cresol, as 3+4-Methylphenol)	6410
4-Nitroaniline	6470
4-Nitrophenol	6500
Acenaphthene	5500
Acenaphthylene	5505
Acetophenone	5510
Aniline	5545
Anthracene	5555
Benzaldehyde	5570
Benzidine	5595
Benzo(a)Anthracene	5575
Benzo(a)Pyrene	5580
Benzo(b)Fluoranthene	5585
Benzo(g,h,i)Perylene	5590
Benzo(k)Fluoranthene	5600
Benzoic Acid	5610
Benzyl Alcohol	5630
bis(2-Chloroethoxy)Methane	5760
bis(2-Chloroethyl)Ether	5765
Butyl Benzyl Phthalate	5670
Caprolactam	7180
Carbazole	5680
Chrysene	5855
Cresols (Total)	5862
di(2-ethylhexyl)Phthalate	6065
Dibenz(a,h)Anthracene	5895
Dibenzofuran	5905
Diethyl Phthalate	6070
Dimethyl Phthalate	6135
di-n-Butyl Phthalate	5925
di-n-Octyl Phthalate	6200
Fluoranthene	6265
Fluorene	6270
Hexachlorobenzene	6275
Hexachlorobutadiene	4835



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Code

Organic	
EPA 8270D by Gas Chromatography Mass Spectrometry (GC/MS)	10186002
Aqueous	
Hexachlorocyclopentadiene	6285
Hexachloroethane	4840
Indeno(1,2,3,cd)Pyrene	6315
Isophorone	6320
Naphthalene	5005
Nitrobenzene	5015
n-Nitrosodimethylamine	6530
n-Nitrosodi-n-Propylamine	6545
n-Nitrosodiphenylamine	6535
Pentachlorophenol (PCP)	6605
Phenanthrene	6615
Phenol	6625
Pyrene	6665
Pyridine	5095
Total Petroleum Hydrocarbons Diesel Range Organics (TPH DRO) (C10 - C28)	9369
Solid	
1,1'-Biphenyl (BZ-0, Biphenyl)	6703
1,2,4,5-Tetrachlorobenzene	6715
1,2,4-Trichlorobenzene	5155
1,2-Dinitrobenzene (1,2-DNB)	6155
1,3-Dinitrobenzene (1,3-DNB)	6160
2,2-Oxybis(1-Chloropropane)	4659
2,3,4,6-Tetrachlorophenol	6735
2,4,6-Trichlorophenol	6840
2,4-Dichlorophenol	6000
2,4-Dimethylphenol	6130
2,4-Dinitrophenol	6175
2,4-Dinitrotoluene (2,4-DNT)	6185
2,6-Dichlorophenol	6005
2,6-Dinitrotoluene (2,6-DNT)	6190
2-Chloronaphthalene	5795
2-Methyl-4,6-Dinitrophenol (4,6-Dinitro-2-Methylphenol)	6360
2-Methylnaphthalene	6385
2-Methylphenol (o-Cresol)	6400
2-Nitroaniline	6460
2-Nitrophenol	6490



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Code

Organic

EPA 8270D by Gas Chromatography Mass Spectrometry (GC/MS)

10186002

Solid

3,3'-Dichlorobenzidine	5945
3-Methylphenol (m-Cresol)	6405
3-Nitroaniline	6465
4-Bromophenyl Phenyl Ether (BDE-3)	5660
4-Chloro-3-Methylphenol	5700
4-Chloroaniline	5745
4-Chlorophenyl Phenylether	5825
4-Nitroaniline	6470
4-Nitrophenol	6500
7,12-Dimethylbenz(a)Anthracene	6115
Acenaphthene	5500
Acenaphthylene	5505
Acetophenone	5510
Aniline	5545
Anthracene	5555
Atrazine	7065
Benzaldehyde	5570
Benzidine	5595
Benzo(a)Anthracene	5575
Benzo(a)Pyrene	5580
Benzo(b)Fluoranthene	5585
Benzo(g,h,i)Perylene	5590
Benzo(k)Fluoranthene	5600
Benzoic Acid	5610
Benzyl Alcohol	5630
bis(2-Chloroethoxy)Methane	5760
Butyl Benzyl Phthalate	5670
Caprolactam	7180
Carbazole	5680
Chrysene	5855
Dibenz(a,h)Anthracene	5895
Diethyl Phthalate	6070
Dimethyl Phthalate	6135
di-n-Butyl Phthalate	5925
di-n-Octyl Phthalate	6200
Fluoranthene	6265



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Code

Organic

EPA 8270D by Gas Chromatography Mass Spectrometry (GC/MS)	10186002
Solid	
Fluorene	6270
Hexachlorobutadiene	4835
Hexachlorocyclopentadiene	6285
Hexachloroethane	4840
Indeno(1,2,3,cd)Pyrene	6315
Isophorone	6320
Naphthalene	5005
Nitrobenzene	5015
n-Nitrosodimethylamine	6530
n-Nitrosodiphenylamine	6535
Phenanthrene	6615
Phenol	6625
Pyrene	6665
Pyridine	5095
Total Petroleum Hydrocarbons Diesel Range Organics (TPH DRO) (C10 - C28)	9369
EPA TO-15 by Gas Chromatography Mass Spectrometry (GC/MS)	10248803
Air	
1,1,1-Trichloroethane	5160
1,1,2,2-Tetrachloroethane	5110
1,1,2-Trichloro-1,2,2-Trifluoroethane (Trichlorotrifluoroethane, Freon 113)	5185
1,1,2-Trichloroethane	5165
1,1-Dichloroethane	4630
1,1-Dichloroethylene	4640
1,2,4-Trichlorobenzene	5155
1,2,4-Trimethylbenzene	5210
1,2-Dibromoethane (EDB, Ethylene Dibromide)	4585
1,2-Dichloro-1,1,2,2-Tetrafluoroethane (Freon 114, 1,2-Dichlorotetrafluoroethane)	4695
1,2-Dichlorobenzene	4610
1,2-Dichloroethane (Ethylene Dichloride, EDC)	4635
1,2-Dichloropropane	4655
1,3,5-Trimethylbenzene	5215
1,3-Butadiene	9318
1,3-Dichlorobenzene	4615
1,4-Dichlorobenzene	4620
1,4-Dioxane (1,4-Diethyleneoxide, p-Dioxane)	4735
2,2,4-Trimethylpentane (Isooctane)	5220



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Code

Organic

EPA TO-15 by Gas Chromatography Mass Spectrometry (GC/MS)	10248803
Air	
2-Butanone (Methyl Ethyl Ketone, MEK)	4410
2-Chlorotoluene	4535
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone (MIBK), Hexone)	4995
Acetone	4315
Acetonitrile	4320
Acrylonitrile	4340
Allyl Chloride (3-Chloropropene)	4355
Benzene	4375
Benzyl Chloride	5635
Bromodichloromethane	4395
Bromoform	4400
Carbon Disulfide	4450
Carbon Tetrachloride	4455
Chlorobenzene	4475
Chlorodibromomethane (Dibromochloromethane)	4575
Chloroethane (Ethyl Chloride)	4485
Chloroform	4505
cis-1,2-Dichloroethylene	4645
cis-1,3-Dichloropropene	4680
Cyclohexane	4555
Dichlorodifluoromethane (Freon 12)	4625
Ethyl Acetate	4755
Ethylbenzene	4765
Hexachlorobutadiene	4835
Isopropyl Alcohol (IPA, 2-Propanol, Isopropanol)	4895
m,p-Xylene	5240
Methyl Bromide (Bromomethane)	4950
Methyl Chloride (Chloromethane)	4960
Methyl Methacrylate	4990
Methyl tert-Butyl Ether (MTBE)	5000
Methylene Chloride (Dichloromethane)	4975
Naphthalene	5005
n-Heptane	4825
n-Hexane	4855
o-Xylene (1,2-Xylene)	5250
Styrene	5100



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Code

Organic

EPA TO-15 by Gas Chromatography Mass Spectrometry (GC/MS) 10248803

Air

tert-Butyl Alcohol (TBA, 2-Methyl-2-Propanol, t-Butanol)	4420
Tetrachloroethylene (Perchloroethylene, PCE)	5115
Toluene	5140
trans-1,2-Dichloroethylene	4700
trans-1,3-Dichloropropylene	4685
Trichloroethene (TCE, Trichloroethylene)	5170
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	5175
Vinyl Acetate	5225
Vinyl Bromide (Bromoethane)	5230
Vinyl Chloride (Chloroethene)	5235
Xylenes (Total)	5260

PFAS by LC/MS/MS Compliant with Table B-15 of QSM 5.3 or Latest Version by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS) 90000451

Aqueous

11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	9490
1H, 1H, 2H, 2H-Perfluorodecane Sulfonic Acid (8:2 FTS)	6948
1H, 1H, 2H, 2H-Perfluorohexane Sulfonic Acid (4:2 FTS)	6946
1H, 1H, 2H, 2H-Perfluorooctane Sulfonic Acid (6:2 FTS)	6947
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	6951
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid (9-Cl-PF3ONS)	6952
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) – GenX	9460
n-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	4846
n-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	4847
Perfluorobutane Sulfonic Acid (PFBS)	6918
Perfluorobutanoic Acid (PFBA)	6915
Perfluorodecane Sulfonic Acid (PFDS)	6920
Perfluorodecanoic Acid (PFDA)	6905
Perfluorododecanoic Acid (PFDoA)	6903
Perfluoroheptane Sulfonic Acid (PFHpS)	9470
Perfluoroheptanoic Acid (PFHpA)	6908
Perfluorohexane Sulfonic Acid (PFHxS)	6927
Perfluorohexanoic Acid (PFHxA)	6913
Perfluorononane Sulfonic Acid (PFNS)	6929
Perfluorononanoic Acid (PFNA)	6906
Perfluorooctane Sulfonamide (PFOSA)	6917
Perfluorooctane Sulfonic Acid (PFOS)	6931



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Organic

PFAS by LC/MS/MS Compliant with Table B-15 of QSM 5.3 or Latest Version by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS) 90000451

Aqueous

Perfluorooctanoic Acid (PFOA)	6912
Perfluoropentane Sulfonic Acid (PFPeS)	6934
Perfluoropentanoic Acid (PFPeA)	6914
Perfluorotetradecanoic Acid (PFTeDA)	6902
Perfluorotridecanoic Acid (PFTrDA)	9563
Perfluoroundecanoic Acid (PFUnDA)	6904

Solid

11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	9490
1H, 1H, 2H, 2H-Perfluorodecane Sulfonic Acid (8:2 FTS)	6948
1H, 1H, 2H, 2H-Perfluorohexane Sulfonic Acid (4:2 FTS)	6946
1H, 1H, 2H, 2H-Perfluorooctane Sulfonic Acid (6:2 FTS)	6947
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	6951
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid (9-Cl-PF3ONS)	6952
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) – GenX	9460
n-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	4846
n-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	4847
Perfluorobutane Sulfonic Acid (PFBS)	6918
Perfluorobutanoic Acid (PFBA)	6915
Perfluorodecane Sulfonic Acid (PFDS)	6920
Perfluorodecanoic Acid (PFDA)	6905
Perfluorododecanoic Acid (PFDoA)	6903
Perfluoroheptane Sulfonic Acid (PFHpS)	9470
Perfluoroheptanoic Acid (PFHpA)	6908
Perfluorohexane Sulfonic Acid (PFHxS)	6927
Perfluorohexanoic Acid (PFHxA)	6913
Perfluorononane Sulfonic Acid (PFNS)	6929
Perfluorononanoic Acid (PFNA)	6906
Perfluorooctane Sulfonamide (PFOSA)	6917
Perfluorooctane Sulfonic Acid (PFOS)	6931
Perfluorooctanoic Acid (PFOA)	6912
Perfluoropentane Sulfonic Acid (PFPeS)	6934
Perfluoropentanoic Acid (PFPeA)	6914
Perfluorotetradecanoic Acid (PFTeDA)	6902
Perfluorotridecanoic Acid (PFTrDA)	9563
Perfluoroundecanoic Acid (PFUnDA)	6904



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Accreditation is granted to the facility to perform the following testing:

Code

Preparation

Aqueous

EPA 1311	Toxicity Characteristic Leaching Procedure (TCLP)
EPA 1312	Synthetic Precipitation Leaching Procedure (SPLP)
EPA 3015A	Acid Digestion for Metals (Microwave)
EPA 3060A	Alkaline Digestion (Hexavalent Chromium)
EPA 3510C	Separatory Funnel Liquid-Liquid Extraction
EPA 3660B	Sulfur Cleanup
EPA 3665A	Sulfuric Acid Cleanup
EPA 5030C	Purge-and-Trap for Volatile Organics in Aqueous Samples

Solid

EPA 1311	Toxicity Characteristic Leaching Procedure (TCLP)
EPA 1312	Synthetic Precipitation Leaching Procedure (SPLP)
EPA 3050B	Acid Digestion for Metals
EPA 3060A	Alkaline Digestion (Hexavalent Chromium)
EPA 3550C	Ultrasonic Extraction
EPA 3660B	Sulfur Cleanup
EPA 3665A	Sulfuric Acid Cleanup
EPA 5035A	Purge-and-Trap and Extraction For Volatile Organics (Closed-System)

Footnotes:

> Method codes are typically based on The NELAC Institute (TNI) Laboratory Accreditation Management System (LAMS) and are used to compare to the laboratory reported Performance Test (PT) results. Although the method code may not represent the specific method version, it is the method code used to represent the method/technology used to report PTs. (NC = No Code)