



AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

Liberty Mutual Insurance Industrial Hygiene Laboratory

Industrial Hygiene Laboratory 94 South St Hopkinton, MA
01748-2219

Laboratory ID: LAP-100045

Issue Date: 12/31/2021

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

Industrial Hygiene Laboratory Accreditation Program (IHLAP)

Initial Accreditation Date: 06/01/1974

IHLAP Scope Category	Field of Testing (FOT)	Technology sub-type/Detector	Published Reference Method/Title of In-house Method	Component, parameter or characteristic tested
Asbestos/Fiber Microscopy Core	Phase Contrast Microscopy (PCM)	-	NIOSH 7400	Asbestos and other fibers
Asbestos/Fiber Microscopy Core	Polarized Light Microscopy (PLM)	-	NIOSH 9002	Asbestos
Beryllium Testing	Inductively-Coupled Plasma	ICP/AES	OSHA ID-125G	Beryllium
Chromatography Core	GC/MS	-	3M Method (GC/MS Scan)	Organic Vapors GC/MS scan
Chromatography Core	GC/MS	-	3M Method 3500/3520 Modified	Organic Analyses by GC/MS
Chromatography Core	GC/MS	-	CIBA GEIGY-C321A Modified	1,3,5-Triglycidyl isocyanurate
Chromatography Core	GC/MS	-	LM-GCMS-12	Acetoin, Diacetyl
Chromatography Core	GC/MS	-	LM-GCMS-13	Organic Vapors GC/MS scan
Chromatography Core	GC/MS	-	LM-GCMS-14	Organic Vapors by GC/MS
Chromatography Core	GC/MS	-	NIOSH 1007 Modified	Vinyl Chloride
Chromatography Core	GC/MS	-	NIOSH 1024 Modified	1,3-Butadiene
Chromatography Core	GC/MS	-	NIOSH 1600 Modified	Carbon disulfide
Chromatography Core	GC/MS	-	NIOSH 2002 Modified	Aromatic amines
Chromatography Core	GC/MS	-	NIOSH 5503 Modified	Polynuclear Aromatic Hydrocarbons (PAHs)
Chromatography Core	GC/MS	-	NIOSH 5515 Modified	Polynuclear Aromatic Hydrocarbons (PAHs)
Chromatography Core	GC/MS	-	OSHA 1016 Modified	2,3-Pentanedione



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Chromatography Core	Gas Chromatography	GC/FID	ASTM D5578-04 Modified	Ethylene Oxide
Chromatography Core	Gas Chromatography	GC/FID	LM-GC-59	Dimethyl Sulfide, Dimethyl Disulfide
Chromatography Core	Gas Chromatography	GC/FID	LM-GC-68	Organic Vapors
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1000 Modified	Allyl chloride
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1002	Chloroprene
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1003	Halogenated Hydrocarbons
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1005	Methylene Chloride
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1010	Epichlorohydrin
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1020	1,1,2-Trichloro-1,2,2-trifluoroethane
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1022	Trichloroethylene
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1024 Modified	1,3-Butadiene
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1300	Ketones I
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1301 Modified	Ketones II
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1302 Modified	n-Methyl-2-pyrrolidinone
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1400 Modified	Alcohols I
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1401 Modified	Alcohols II
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1402 Modified	Alcohols III
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1403 Modified	Alcohols IV
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1450	Esters I
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1451	Methyl cellosolve acetate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1453 Modified	Vinyl Acetate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1454	Isopropyl Acetate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1457	Ethyl Acetate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1458	Methyl Acetate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1459	Methyl Acrylate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1500	Hydrocarbons
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1501	Aromatic Hydrocarbons
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1550	Naphthas
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1602	1,4-Dioxane
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1604 Modified	Acrylonitrile
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1606 Modified	Acetonitrile
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1609	Tetrahydrofuran

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IHLAP Scope Category	Field of Testing (FOT)	Technology sub-type/Detector	Published Reference Method/Title of In-house Method	Component, parameter or characteristic tested
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1610	Ethyl Ether
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1613	Pyridine
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1615	Methyl tert-butyl ether
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1616	n-Butyl glycidyl ether
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2000	Methanol
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2004	Dimethylformamide
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2010	Aliphatic amines
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2500	Methyl Ethyl Ketone
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2505 Modified	Furfuryl alcohol
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2508	Isophorone
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2526	Nitroethane
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2527 Modified	Nitromethane
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2537	Methyl and ethyl methacrylate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 5020	Dibutyl phthalate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 5034	Tributyl Phosphate
Chromatography Core	Gas Chromatography	GC/FID	NIOSH 5523	Glycols
Chromatography Core	Gas Chromatography	GC/FID	NIOSH S-150	Morpholine
Chromatography Core	Gas Chromatography	GC/FID	OSHA 1016	2,3-Pentanedione
Chromatography Core	Gas Chromatography	GC/FID	OSHA 103	Enflurane, Halothane, Isoflurane
Chromatography Core	Gas Chromatography	GC/FID	OSHA 104	Phthalates
Chromatography Core	Gas Chromatography	GC/FID	OSHA 5001	Alcohols
Chromatography Core	Gas Chromatography	GC/FID	OSHA PV 2041	Methyl Formate
Chromatography Core	Gas Chromatography	GC/FID	OSHA PV2003 Modified	Acetophenone
Chromatography Core	Gas Chromatography	GC/FID	OSHA PV2022	Biphenyl
Chromatography Core	Gas Chromatography	GC/FID	OSHA PV2053	Resorcinol
Chromatography Core	Gas Chromatography	GC/FID	OSHA PV2061 Modified	1-Bromopropane
Chromatography Core	Gas Chromatography	GC/FID	OSHA PV2095 Modified	Butyl carbitol, Butyl carbitol acetate
Chromatography Core	Gas Chromatography (Diffusive Samplers)	-	3M 3500/3M 3520	Organic Vapors
Chromatography Core	Gas Chromatography (Diffusive Samplers)	-	3M 3500/3M 3520 Modified	Organic Vapors by GC/MS
Chromatography Core	Gas Chromatography (Diffusive Samplers)	-	3M Method 3551 Modified	Ethylene Oxide
Chromatography Core	Gas Chromatography (Diffusive Samplers)	-	ASTM D5578-04 Modified	Ethylene Oxide



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Chromatography Core	Gas Chromatography (Diffusive Samplers)	-	LM-GC-68	Organic Vapors
Chromatography Core	Gas Chromatography (Diffusive Samplers)	-	LM-GCMS-8	Organic Vapors GC/MS scan
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 2007 Modified	Ethanolamine, Diethanolamine, and Triethanolamine
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 2008	Chloroacetic Acid
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 2011	Acetic and formic acid
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 2011 Modified	Acetic, Formic, Propionic and Butyric Acid
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 2011 Modified	Lactic Acid
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 6004 Modified	Sulfur dioxide
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 6005 Modified	Iodine
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 6011 Modified	Bromine, Chlorine
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 6013 Modified	Hydrogen sulfide
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 7903	Inorganic Acids
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 7906	Fluorides aerosol and gas
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 7907	Volatile acids
Chromatography Core	Ion Chromatography (IC)	-	NIOSH 7908	Non-volatile acids
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-1011 Modified	Sulfur dioxide
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-113 Modified	Sulfuric acid
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-128SG Modified	Phosphorus pentasulfide
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-182	Nitrogen dioxide
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-188	Ammonia
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-190	Nitric Oxide
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-202 Modified	Chlorine dioxide
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-202 Passive Modified	Chlorine dioxide
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-214	Ozone
Chromatography Core	Ion Chromatography (IC)	-	OSHA ID-215 (Version 2)	Hexavalent Chromium
Chromatography Core	Ion Chromatography (IC)	-	OSHA PV2119	Acetic Acid
Chromatography Core	Ion Chromatography (IC)	-	OSHA W4001	Hexavalent Chromium
Chromatography Core	Liquid Chromatography	HPLC/UV	LM-LC-30	Abietic Acid, Dehydroabietic Acid
Chromatography Core	Liquid Chromatography	HPLC/UV	LM-LC-36	Polymeric MDI
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 2014	p-Chlorophenol
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 2016	Aldehydes

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Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 2016 Modified	Aldehydes
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 2532	Glutaraldehyde
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 2544 Modified	Nicotine
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5004	Hydroquinone
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5005	Thiram
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5008	Pyrethrum
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5009	Benzoyl Peroxide
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5029	4,4-Methylenedianiline (MDA)
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5041 Modified	Capsaicin
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5506	PAHs
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH 5601 Modified	Chlorpropham
Chromatography Core	Liquid Chromatography	HPLC/UV	NIOSH P&CAM 236	4,4-Methylenebis(2-chloroaniline)
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 1018	Bisphenol A, DGEbPA
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 105	Xylene diamine
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 108	Hydrazine
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 32	Phenol and Cresol
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 42	Isocyanates
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 47	Methylene Bisphenol Isocyanate
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 55	Ethyl 2-Cyanoacrylate
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 58 Modified	PAHs
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 60 Modified	EDA, DETA, TETA
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 63	Carbaryl
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 64	Glutaraldehyde
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 90	Phthalic Anhydride
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA 98	Trimellitic Anhydride
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA IMIS P250	Piperazine
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA PV2005	Acrylic Acid Methacrylic acid
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA PV2012	Caprolactam
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA PV2017	Trichloroacetic Acid
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA PV2094	Hydroquinone
Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA PV2125	HDI Polymer



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Chromatography Core	Liquid Chromatography	HPLC/UV	Rohm & Hass 9901	CIT, MIT (Kathon)
Chromatography Core	Liquid Chromatography	LC/MS	DuPont Method Modified	Perfluorooctanoic Acid
Chromatography Core	Liquid Chromatography	LC/MS	NIOSH 2016 Modified	Aldehydes
Compressed/ Breathing Air Testing	Gas Chromatography	GC/FID	LM-GAS-3	Compressed Air
Compressed/ Breathing Air Testing	Gas Chromatography	GC/TCD	LM-GAS-3	Compressed Air
Compressed/ Breathing Air Testing	Gas Chromatography	GC/XSD	LM-GAS-3	Compressed Air
Compressed/ Breathing Air Testing	Gravimetric	-	NIOSH 0500	Total Dust
Miscellaneous Core	Gravimetric	-	HSE MDHS 14	Inhalable Dust
Miscellaneous Core	Gravimetric	-	NIOSH 0500	Total Dust
Miscellaneous Core	Gravimetric	-	NIOSH 0600	Respirable Dust
Miscellaneous Core	Gravimetric	-	NIOSH 5000	Carbon Black
Miscellaneous Core	Gravimetric	-	NIOSH 5023	Coal Tar Pitch Volatiles
Miscellaneous Core	Gravimetric	-	NIOSH 5042	Asphalt fume
Miscellaneous Core	Gravimetric	-	NIOSH 5524	Metal Working Fluids
Miscellaneous Core	Gravimetric	-	OSHA 58	CTPV and COE
Miscellaneous Core	Gravimetric	-	OSHA ID-196	Carbon Black
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	LM-Pharma-1 (Glipizide)	Glipizide
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	LM-Pharma-3 (Niacin)	Niacin
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	LM-Pharma-6 (Fluoxetine HCl)	Fluoxetine HCl
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 011	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 027	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 037	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 043	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 100	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 105	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 107	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 254	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 273	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 276	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 282	Proprietary Pharmaceutical Compound

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Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method 70	Proprietary Pharmaceutical Compound
Pharmaceutical Testing	Liquid Chromatography	HPLC/UV	Method LC-037	Diflunisal
Pharmaceutical Testing	Liquid Chromatography	LC/MS	LM-Pharma-4 (Naproxen Sodium)	Naproxen Sodium
Pharmaceutical Testing	Liquid Chromatography	LC/MS	LM-Pharma-5 (Ibuprofen)	Ibuprofen
Spectrometry Core	Atomic Absorption	CVAA	NIOSH 6009 Modified	Mercury
Spectrometry Core	Atomic Absorption	CVAA	OSHA ID-140 Modified	Mercury
Spectrometry Core	Atomic Absorption	CVAA	OSHA ID-145 Modified	Mercury
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	NIOSH 7300 Modified	Metals
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	NIOSH 7301	Metals
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	NIOSH 7301 Modified	Inhalable Manganese
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	NIOSH 7303 Modified	Metals
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	OSHA ID-1003	Phosphine
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	OSHA ID-121 Modified	Metals
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	OSHA ID-125G	Metals
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	OSHA ID-213 Modified	Metals
Spectrometry Core	X-ray Diffraction (XRD)	-	NIOSH 7500	Crystalline Silica

A complete listing of currently accredited IHLAP laboratories is available on the AIHA LAP, LLC website at: <http://www.aihaaccreditedlabs.org>