



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

CASSEN Testing Laboratories

51 International Blvd, Toronto, ON Canada M9W 6H3

Laboratory ID: 163061

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- | | |
|---|-------------------------------------|
| <input checked="" type="checkbox"/> INDUSTRIAL HYGIENE | Accreditation Expires: May 01, 2020 |
| <input type="checkbox"/> ENVIRONMENTAL LEAD | Accreditation Expires: |
| <input type="checkbox"/> ENVIRONMENTAL MICROBIOLOGY | Accreditation Expires: |
| <input type="checkbox"/> FOOD | Accreditation Expires: |
| <input type="checkbox"/> UNIQUE SCOPES | Accreditation Expires: |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Elizabeth Bair

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC



AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

CASSEN Testing Laboratories
51 International Blvd, Toronto, ON M9W 6H3, CANADA

Laboratory ID: **163061**
Issue Date: 05/31/2018

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: 07/01/2005

IHLAP Scope Category	Field of Testing (FoT) (FoTs cover all relevant IH matrices)	Technology sub-type/ Detector	Published Reference Method/Title of In-house Method	Method Description or Analyte <i>(for internal methods only)</i>
Chromatography Core	Gas Chromatography	GC/FID	CASSEN In House Method - Monoethanolamine	
			CASSEN In House Method - N, N-Diethyl-2-aminoethanol	
			EPA 18 Modified	
			MDHS 17	
			MDHS 20	
			MDHS 21	
			MDHS 96	
			NIOSH 1000	
			NIOSH 1003	
			NIOSH 1005	
			NIOSH 1007	
			NIOSH 1010	
			NIOSH 1013	
			NIOSH 1014	
			NIOSH 1018	
			NIOSH 1019	
			NIOSH 1022	
			NIOSH 1024	
NIOSH 1025				
NIOSH 1300				
NIOSH 1301				



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Chromatography Core	Gas Chromatography	GC/FID	NIOSH 1302	
			NIOSH 1400	
			NIOSH 1401	
			NIOSH 1402	
			NIOSH 1403	
			NIOSH 1405	
			NIOSH 1450	
			NIOSH 1451	
			NIOSH 1452	
			NIOSH 1453	
			NIOSH 1454	
			NIOSH 1457	
			NIOSH 1458	
			NIOSH 1459	
			NIOSH 1500	
			NIOSH 1501	
			NIOSH 1550	
			NIOSH 1551	
			NIOSH 1552	
			NIOSH 1600	
			NIOSH 1602	
			NIOSH 1603	
			NIOSH 1604	
			NIOSH 1606	
			NIOSH 1609	
			NIOSH 1610	
			NIOSH 1612	
			NIOSH 1613	
			NIOSH 1614	
			NIOSH 2000	
			NIOSH 2005	
NIOSH 2007				
NIOSH 2500				
NIOSH 2505				
NIOSH 2508				
NIOSH 2517				
NIOSH 2521				
NIOSH 2529				
NIOSH 2537				
NIOSH 2546				
NIOSH 2552				



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Chromatography Core	Gas Chromatography	GC/FID	NIOSH 2553	
			NIOSH 2554	
			NIOSH 2555 Modified	
			NIOSH 2558	
			NIOSH 5500	
			NIOSH 5523	
			OSHA 04	
			OSHA 05	
			OSHA 09	
			OSHA 1001	
			OSHA 1002	
			OSHA 1004	
			OSHA 1005	
			OSHA 1009	
			OSHA 101	
			OSHA 1013	
			OSHA 1016	
			OSHA 103	
			OSHA 104	
			OSHA 106	
			OSHA 109	
			OSHA 11	
			OSHA 113	
			OSHA 12	
			OSHA 14	
			OSHA 15	
			OSHA 19	
			OSHA 46	
			OSHA 48	
			OSHA 53	
OSHA 56				
OSHA 66				
OSHA 69				
OSHA 79				
OSHA 80				
OSHA 83				
OSHA 89				
OSHA 94				
OSHA 99				



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Chromatography Core	Gas Chromatography	GC/FID	OSHA IMIS Code No. P145 (2-Phenoxyethanol)	
			OSHA IMIS Code No. S775 (Sevoflurane)	
			OSHA PV2009	
			OSHA PV2011	
			OSHA PV2013	
			OSHA PV2016	
			OSHA PV2020	
			OSHA PV2022	
			OSHA PV2024	
			OSHA PV2026	
			OSHA PV2028	
			OSHA PV2031	
			OSHA PV2036	
			OSHA PV2040	
			OSHA PV2042	
			OSHA PV2047	
			OSHA PV2051	
			OSHA PV2060	
			OSHA PV2085	
			OSHA PV2091	
			OSHA PV2095	
			OSHA PV2108	
			OSHA PV2118	
			OSHA PV2123	
			OSHA PV2124	
			OSHA PV2137	
		OSHA PV2138		
OSHA PV2139				
OSHA PV2141				
OSHA PV2142				
OSHA PV2295				
GC/ECD	CASSEN In House Method - Carboxin			



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Chromatography Core	Gas Chromatography	GC/ECD	CASSEN In House Method - Chlorinated Pesticides/Organophosphorus Pesticides (Aldrin a-BHC β-BHC d-BHC g-BHC 4,4'-DDE 4,4'-DDT 4,4'-DDD Dieldrin a-Endosulfan β-Endosulfan Endosulfan Sulfate Endrin Endrin aldehyde Endrin ketone Heptachlor Heptachlor epoxide Methoxychlor Lindane)	
			CASSEN In House Method - Clothianidin	
			CASSEN In House Method - Difenconazole	
			CASSEN In House Method - Fludioxonil	
			CASSEN In House Method - Fungicide	
			CASSEN In House Method - Matalaxyl-M	
			CASSEN In House Method - Nitrous Oxide	
			CASSEN In House Method - Thiamethoxam	
			CASSEN In House Method - Trifloxystrobin	
			EPA 608 Modified	
			NIOSH 1008	
			NIOSH 1013	
			NIOSH 2519	
			NIOSH 2543	
			NIOSH 5503	
			NIOSH 5600 Modified	
			NIOSH 5601 Modified	
			OSHA 1010	
			OSHA 49	
			OSHA 67 Modified	
			OSHA 70 Modified	
			OSHA 71	
			OSHA PV2029	
OSHA PV2088				
OSHA PV2089				



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Chromatography Core	Gas Chromatography	GC/FPD	ASTM D5705	
			ASTM D6021	
			CASSEN In House Method - 2-Mercaptoethanol	
			CASSEN In House Method - Hydrogen Sulphide	
			CASSEN In House Method - Sulphur Gases	
			EPA 18 Modified	
			MDHS 15	
			NIOSH 1600	
			NIOSH 2542	
			OSHA 62	
	GC/MS	ASTM D4526		
		ASTM D6196-03		
		ASTM D6196-97		
		ASTM D6661-10		
		ASTM E1413		
		ASTM E1618		
		CARB Method 429		
		CARB MLD SOP SAS04		
		CARB SOP MLD SAS06		
		CASSEN In House - Arson		
		CASSEN In House - Cigarette Smoke (Acrolein Acrylonitrile Benzene 1,3-Butadiene m/p-Cresol 2,5-Dimethyl Pyrazine Methanamine Methyl Pyrazine 3-Methyl Pyridine 1- Methyl-1H-Pyrrole 2-Methyl-1H-Pyrrole Nicotine Nicotyrine N-Nitrosodimethylamine o-Cresol Phenol Pyrazine Pyridine Pyrrole 3-Vinylpyridine)		
		CASSEN In House - Permethrin		
		CASSEN In House Method - Acrylates		



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Chromatography Core	GC/MS		CASSEN In House Method - Acrylates (Methyl acrylate, Ethyl acrylate, Methyl methacrylate, Ethyl methacrylate, 2-hydroxyethyl acrylate, 2-Hydroxyethyl methacrylate, Hydroxypropyl methacrylate, Ethylene glycol dimethacrylate)	
			CASSEN In House Method - Acrylates and Acetates (Ethyl Acrylate 2-Ethylhexyl acetate 2 Ethylhexyl acrylate (EHA) 2 Ethylhexyl methacrylate (EHMA) Ethyl methacrylate Ethylhexyl methacrylate (EHMA) Hydroxyethyl acrylate Hydroxypropyl methacrylate Methyl acrylate Methyl methacrylate)	
			CASSEN In House Method - Amphetamine Methamphetamine Ecstasy (MDMA), MDEA	
			CASSEN In House Method - Carfentanil and Fentanil	
			CASSEN In House Method - delta-9-THC	
			CASSEN In House Method - gamma-Buyrolactone	
			CASSEN In House Method - Hexamethylenetetramine	



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Chromatography Core	GC/MS		CASSEN In House Method - Illicit Drug (Caffeine Codeine Diazepam (Valium) Flunitrazepam Heroin LSD Methadone Morphine Oxycodone Phenylcyclidine (PCP))	
			CASSEN In House Method - Isooctyl acrylate	
			CASSEN In House Method - Polybrominated Biphenyls (PBB) and Polybrominated Diphenyl Ethers (PBDE)	
			CASSEN In House Method - Propiconazole	
			CASSEN In House Method - Pyrazine	
			CASSEN In House Method - Tebuconazole	
			CASSEN In House Method - W18	
			CASSEN In-House Method - Fragrance (Pentyl Acetate Benzaldehyde Benzyl Acetate Camphene Coumarin o-Cymene Geraniol Acetate 1-Hexanol β-Ionone Isoamyl Acetate Limonene Linalool 4-Methylanisole 2-Phenylethyl Acetate Phenylethyl Alcohol α-Pinene)	
			CASSEN In-House Method - Tear Gas (2-Chloroacetophenone (CN), 2-Chlorobenzalmalonitrile (CS), α-Chlorotoluene)	
			ECA Report No. 19	
			EPA 18 Modified	
			EPA 325	



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Chromatography Core	GC/MS		EPA 3500C	
			EPA 3510C	
			EPA 3550C	
			EPA 3810	
			EPA 3810 Modified	
			EPA 501.3	
			EPA 5021	
			EPA 5021A	
			EPA 5035	
			EPA 5035 Modified	
			EPA 550	
			EPA 550 Modified	
			EPA 600/R-03/072	
			EPA 608 Modified	
			EPA 625/R-96	
			EPA 8010B	
			EPA 8020A	
			EPA 8030A	
			EPA 8032A	
			EPA 8040B	
			EPA 8260B R-02	
			EPA 8265 Modified	
			EPA 8270D	
			EPA 8270D R-04	
			EPA TO-13A	
			EPA TO-17	
			IEC 62321:2008	
			ISO 16017-1	
			ISO 16017-1:2000	
			ISO 16017-2	
			MDHS 2549	
			MDHS 53/2	
MDHS 63/2				
MDHS 72				
MDHS 80				
MDHS 94/2				
NIOSH 2549				
NIOSH 2549 Modified				
NIOSH 5020 Modified				
NIOSH 5034				
NIOSH 5037				



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Chromatography Core	GC/MS		NIOSH 5038	
			NIOSH 5515	
			NIOSH 5515 Modified	
			NIOSH 5600 Modified	
			NIOSH 5601 Modified	
			NIOSH 9106	
			OSHA 104 Modified	
			OSHA 21 Modified	
			OSHA 39 Modified	
			OSHA 58 Modified	
			OSHA IMIS Code Number: P448 (Modified)	
	OSHA PV2004			
	Gas Chromatography (Diffusive Samplers)		MDHS 88	
			NIOSH 4000	
			OSHA 1001	
			OSHA 1002	
			OSHA 1004	
			OSHA 1005	
			OSHA 1009	
			OSHA 1014	
			OSHA 1014 Modified	
			OSHA 1020	
			OSHA 106 Modified	
			OSHA 111	
			OSHA 35 Modified	
			SOP 1107	Determination of Select Analytes in Air, Collected in Passive Sampler. Followed by Gas Chromatography Coupled with Flame Ionization Detector (GC-FID)
	Ion Chromatography (IC)		CARB MLD SOP SAS 02	
			CASSEN In House Method - Aminoethanol compounds (Modified NIOSH 2007)	
			CASSEN In House Method - Azide	
			CASSEN In House Method - Chloric Acid	



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Chromatography Core	Ion Chromatography (IC)		CASSEN In House Method - Chloroamine	
			CASSEN In House Method - Perchloric/Chloric Acid	
			CASSEN In House Method - Perchlorichloric Acid	
			CASSEN In House Method - Sulphur Monochloride	
			CASSEN In House Method - Trichloroamine	
			EPA 300.0	
			EPA 300.1	
			EPA 314	
			EPA 9056	
			INRS-104	
			NIOSH 2011	
			NIOSH 3509 Modified	
			NIOSH 6004	
			NIOSH 6011	
			NIOSH 6013	
			NIOSH 6016	
			NIOSH 7906	
			NIOSH 7907	
			NIOSH 7908	
			OSHA 1008	
			OSHA 1011	
			OSHA 202	
			OSHA ID-165SG	
			OSHA ID-174SG	
			OSHA ID-182	
			OSHA ID-186SG	
			OSHA ID-188	
			OSHA ID-190	
	OSHA ID-211 Modified			
	OSHA ID-214			
	OSHA PV2119			
	OSHA PV2141 Modified			
	Liquid Chromatography	HPLC/UV	ASTM D5197	
		ASTM D6561		
		ASTM D6562		



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Chromatography Core	Liquid Chromatography	HPLC/UV	CASSEN In House Method - DMDM Hydantoin	
			CASSEN In House Method - Thymol	
			CASSEN In House Method - 1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione	
			CASSEN In House Method - 3,3-Diaminobenzidine	
			CASSEN In House Method - Abietic Acid	
			CASSEN In House Method - Amine	
			CASSEN In House Method - Citric Acid	
			CASSEN In House Method - Codeine	
			CASSEN In House Method - Herbicide	
			CASSEN In House Method - Illicit Drug	
			CASSEN In House Method - IPBC	
			CASSEN In House Method - Meropenem	
			CASSEN In House Method - Peroxyacetic Acid	
			CASSEN In House Method - Sodium Carbonate and Trisodium Phosphate	
			EPA 100	
			EPA 1P-6A	
			EPA 218.6 Modified	
			EPA 3500C	
			EPA 550	
			EPA 554	
EPA 8270D R-04 Modified				
EPA TO-11A				



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Chromatography Core	Liquid Chromatography	HPLC/UV	ISO 14184-1:2011 Modified	
			MDHS 102	
			MDHS 25/4	
			MDHS 85/2	
			MDHS 98/3	
			NIOSH 2014	
			NIOSH 2016	
			NIOSH 2018	
			NIOSH 2532	
			NIOSH 2540	
			NIOSH 5001	
			NIOSH 5004	
			NIOSH 5005	
			NIOSH 5041	
			NIOSH 5506	
			NIOSH 5521	
			NIOSH 5522	
			NIOSH 5525	
			NIOSH 5601	
			NIOSH 5700	
			NIOSH 7600	
			NIOSH 9106 Modified	
			NIOSH 9111 Modified	
			NIOSH S228	
			OSHA 1007	
			OSHA 108	
			OSHA 25	
			OSHA 28	
			OSHA 39	
			OSHA 42	
OSHA 47				
OSHA 58				
OSHA 60				
OSHA 64 Modified				
OSHA 78				
OSHA 81				
OSHA ID-211 Modified				
OSHA PV2005				
OSHA PV2012				
OSHA PV2049				



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Chromatography Core	Liquid Chromatography	HPLC/UV	OSHA PV2090	
			OSHA PV2092	
			OSHA PV2116	
Spectrometry Core	Atomic Absorption	CVAA	EPA 245.2	
			NIOSH 6009	
			OSHA ID-145	
		FAA	EPA 202.1	
			EPA 202.4	
			EPA 208.1	
			EPA 210.1	
			EPA 213.1	
			EPA 215.1	
			EPA 218.1	
			EPA 219.1	
			EPA 220.1	
			EPA 231.1	
			EPA 236.1	
			EPA 239.1	
			EPA 242.1	
			EPA 243.1	
			EPA 246.1	
			EPA 249.1	
			EPA 253.1	
			EPA 255.1	
			EPA 258.1	
			EPA 265.1	
			EPA 267.2	
			EPA 272.1	
			EPA 273.1	
			EPA 279.1	
			EPA 282.1	
			EPA 283.1	
			EPA 286.1	
			EPA 289.1	
			MDHS 10/2	
			MDHS 12/2	
MDHS 6/3				
NIOSH 7013				
NIOSH 7020				
NIOSH 7024				
NIOSH 7027				



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Spectrometry Core	Atomic Absorption	FAA	NIOSH 7029	
			NIOSH 7030	
			NIOSH 7048	
			NIOSH 7056	
			NIOSH 7074	
			NIOSH 7082	
			NIOSH 7102 Modified OSHA ID-121	
	Inductively-Coupled Plasma	ICP/AES	CASSEN In House Method - Dysprosium	
			CASSEN In House Method - Phosphorus	
			CASSEN In House Method - Praseodymium	
			CASSEN In House Method - Sulfur	
			CASSEN In House Method - Terbium	
			EPA 200.7	
			EPA 3031	
			EPA 6010C	
			EPA 6051A	
			MDHS 16/2	
			NIOSH 6001	
			NIOSH 6009 Modified	
			NIOSH 7300	
			NIOSH 7303	
			NIOSH 7304	
			NIOSH 7901 Modified	
NIOSH 9100				
NIOSH 9102				
OSHA ID-125G				
OSHA ID-145 Modified				
OSHA ID-206				
OSHA ID-213				
UV/VIS (Colorimetric)		NIOSH 7600		
Miscellaneous Core	Titrimetric		NIOSH 7401	
	Gravimetric		MDHS 14/4	
			MDHS 84/2	
			NIOSH 0500	
			NIOSH 0600 NIOSH 5000	



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Miscellaneous Core	Gravimetric		NIOSH 5023	
			NIOSH 5026	
			NIOSH 5042 Modified	
			NIOSH 5524	
			OSHA 58	
			OSHA PV 2121	
	Ion-selective electrode (ISE)		EPA 150.1	
			EPA 9040B	
			EPA 9040C	
			EPA 9041A	
			MDHS 56/3	
			NIOSH 7902	
			NIOSH 7904 Modified	
			OSHA ID-120	

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