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LABORATORY LOCATION/ CENTRAL OFFICE:	Nabbir Laboratory (Sarawak) Sdn. Bhd. Lot 2406, Batu Kitang Light Industrial Park 7 ? Mile, Jalan Batu Kitang 93250 Kuching, Sarawak , 93250, SARAWAK MALAYSIA
	
ACCREDITED SINCE :	26 MARCH 2025
FIELD(S) OF TESTING:	CHEMICAL MICROBIOLOGY

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2017 (ISO/IEC 17025:2017).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

CENTRAL LOCATION:	Nabbir Laboratory (Sarawak) Sdn. Bhd. Lot 2406, Batu Kitang Light Industrial Park 7 ? Mile, Jalan Batu Kitang 93250 Kuching, Sarawak , 93250, Sarawak
FIELD(S) OF TESTING :	CHEMICAL, MICROBIOLOGICAL

SCOPE OF TESTING : CHEMICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
(charcoal Tube)	Chloroform	NIOSH 1003, Issue 3
(mce Filter Paper)	None	None
(ptfe Membrane Filter)	None	None
(pvc Filter Paper)	Respirable Particulate	NIOSH 0600
(solid Sorbent Tubes)	Ammonia	NIOSH 6016
(thermo Desorption Tube)	None	1996
Agricultural Products And	Total Nitrogen (N)	In-House Method TOM(S)008 based
	None	Malaysian Standard (1994),
	None	None
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	Phosphorus (as %	In-House Method Ref. No.
	None	None
	None	None
	None	None
	None	None
	None	None
	Arsenic (as As)	None
	Moisture	In-house Method UHW02-02-1
	Total Potassium	In-house Method UHW02-06-1
	None	None
	None	None
	Moisture	MS 417: Part 2 :1994 (Oven Drying
	Total Magnesium (as MgO)	MS 417-6:2020, Clause 6.1, Method
	Moisture	MS 417: Part 2 : 1994 (Oven Drying
	Moisture	MS 417: Part 2 :1994 (Oven Drying
	Total Phosphorous (as	In-house Method, Ref. No. F3,
Alcoholic Beverage	None	on Agilent Application Note 5989-
Ambient Air	VOC	NIOSH 2549 GCMS-ATD 4" Edition
	Particulates Matter (PM10) in the Atmosphere	Appendix B and J) and Methods of Air Sampling and Analysis
	Determination of Nitrogen	JKM E 0320
	Total Suspended Particulate	ASTM D 4096-17
	Total Suspended Particulates	APHA IC (11101-01-70T)(74R)
	Nitrogen Dioxide (NO ₂)	APHA IC (42602-01-68T)(74R)
	Determination of suspended particulate	USEPA 40 Part 50, Appendix B
	Dust Particulate	In-house Method E/ENV/005 based on MiniVol TAS
	Total Suspended Particulate Matter (TSP) PM10	EPA Compendium Method (HVS): 1999
	None	In-house method SGS-SOP-IND-006
	Total Suspended Particulate	AS 2724.3
	Particulate Matter	None
	*Cadmium	NIOSH 7303
	Total suspended particulate in ambient air	ISC Method 501
	Nitrogen dioxide in ambient air	ISC Method 406
	Sulfur dioxide in ambient air	ISC Method 704C & APHA
	Sulfur dioxide in ambient air	4500-SO ₄ E
	Total Suspend Particulates	AS/NZS 3580 9.3: 2015
	PM10	AS/NZS 3580 9.6: 2015

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	PM2.5	AS/NZS 3580 9.14: 2013
	Total Suspended Particulates	AS/NZS 3580.9.3:2015
	PM10	AS/NZS 3580 9.6:2015
	PM2.5	AS/NZS 3580.9.14:2013
	Sulfur Dioxide, SO ₂	Method 704A of Air Sampling and Analysis, 3rd Edition
	Nitrogen Dioxide,	Method 406 of Air Sampling and Analysis, 3rd Edition (Bubbler Method)
	CO	In House Method 6019 based on Passive Dosi-Tube
	Oxidizing Substances In the Atmosphere (as Ozone, O ₃)	Method 411 of Air Sampling and Analysis, 3rd Edition
	CO, H ₂ S	In House Method 6020 based on Instrumentation- Direct Reading Aeroqual 500
Bird Nest	None	by IC
	Metals	In-House Method TOM(F)018 based
	Nitrate and Nitrite	In-house method TPCD-LC/FA-
	Hydrogen Peroxide	In-House No.F133 based on GB/T 23499-2009
Boiler Water	Calcium	US EPA 6010 B 1996 by ICP-OES
	Gold	None
	None	None
	Cadmium as Cd	None
	Copper	None
	None	None
	None	None
	Antimony	None
	(filtration)	None
	None	None
	Free Aluminium	None
	None	None
	Phenolphthalein Alkalinity as	APHA - 2320B
	Cyanide as Cn	APHA - 4500CN-C8&D or C&F
	None	None
	None	None
	None	None
	None	APHA 9221 F, 22" Edition (2012)
	None	None
	Total Dissolved Solids	APHA 2540 C, 2017
	Acidity	APHA 2310. B
	Acidity	APHA 2310. B
Boiler Water Mineral Water	Ammonium	In-House Method TOM 36 by ion chromatography
	Acidity	APHA 2310 B
	Alkalinity	APHA 2320 B

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Salinity & Resistivity	APHA 2520 B
	Oxidation Reduction Potential	APHA 2580 B
	Settleable Solids	APHA 2540 F
	Fixed and Volatile Solids	APHA 2540 E
	Sludge Volume Index	APHA 2710 D
	Settled Sludge Volume	APHA 2710 C
	Turbidity	APHA 2130 B
	Chemical Oxygen Demand (COD)	APHA 5220 D Closed Reflux, Colorimetric Method
	Free Carbon Dioxide	APHA 4500-CO ₂ C
	Color, True and Apparent	In-House Method TOM 58 based on HACH Method 8025
	Chloride	APHA 4500-Cl B
	Formic Acid	In-House Method TOM 63 based on Dionex Application Note 157 by IC
	Total Organic Carbon	APHA 5310 B Combustion Infrared Method
	Oil and Grease	APHA 5520 B
Cereal	Ash	In-House Method TOM (F)001B
	Ochratoxin A	based
	None	based on Romer-™s Elisa Method
	None	based on Romer-™s Lateral Flow
	Total Aflatoxin	MOH L03-001: Determination of
Coffee Powder / Non-	Caffeine	In-House Method TOM(F)013 based
Drinking Water	None	None
	Clostridium perfringens (CFU)	The Microbiology of drinking water
	Detection & Identification of	JKM M 2032, Membrane Filtration Test
	Heterotrophic Colony Count	JKM M 3012 Pour Plate Method -"
	None	Method 09713
	Nitrate	None
	None	None
	Biocides -	In-house Method, CL/WT/009, based
	coliform and Escherichia coli	method
	None	None
	Fluoride	HACH Method 10225
	Nitrate	HACH Method 8171
	Nitrite	HACH Method 8507
	Phenols	HACH Method 8047
	Phosphorus	HACH Method 8048
	Phosphate	HACH Method 8048
	None	None
	Sulphide,	APHA 4500-S? C & F
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Chloride	HACH 8113
	Total Plate Count	APHA 9215 B
	None	None
	None	None
	None	None
	None	None
	Calcium	3120 B
	Cyanide	APHA? 4500 & F
	Formaldehyde	APHA? 6252 B
	Phenol	APHA? 5530 B & C
	Hardness	2340B
	Aluminium (Al)	None
	Biochemical Oxygen Demand	APHA 5210 B & 4500-0 G,
	Zinc as Zn	APHA 3120 B, (2017)
	None	Multiple-Tube Fermentation
	None	Multiple-Tube Fermentation
	None	None
	None	None
	Temperature	APHA 2550 B
	None	None
	None	None
	Epichlorohydrin	In-house JKM W 0413 by Purge and
	Determination of PAHs in	In-house Method JKM W 0414,
	Organochlorine Pesticides	In-house Method JKM W 0502,
	Determination of Anions by Ion	In-house Method JKM W 0303,
	Coliform and Escherichia coli	JKM M 2032
	Turbidity	APHA - 2130B
	Total Nitrogen as N	APHA - 4500Norg B & APHA -
	Oil & Grease	APHA - 5520B or APHA - 5520D
	Antimony as Sb	Plasma Optical Emission
	Antimony as Sb	None
	Selenium as Se	None
	Fluoride as F	Chromatography with Chemical
	Dichlorobromomethane	None
	None	None
	Organophosphorus Pesticides	In-House No. G11 based on EPA
	Organochlorine Pesticides	EPA 525.3 (GCMS)
	Total Hardness as CaCO3	APHA-2340B
	Poly Aromatic Hydrocarbons	In-House No. G5 (based on World
	Polychlorobiphenyls(PCB)	In-House No. G2 based on EPA
	nC29 to nC35	None
	n-Tetracontane	None
	None	Method)
	Sulphite-reducing Anaerobes	ISO 6461/2: 1986
	Aluminium as Al	None
	None	None
	pH	APHA 4500-H + B, 21% Edition

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	Trivalent Chromium	In-House Method SOP-0217-2029
	None	None
	Chloride as Cl	Suppression of Eluent Conductivity
	Conductivity	APHA 2510 B, 21% Edition
	Combined Chlorine as Cl ₂	APHA 4500-Cl G, 21st Edition 2005
	None	None
	Staphylococcus aureus	AOAC OMA 2003.08
	Chlorite (ClO ₂)	In House Method 6023, based on
	None	None
	None	None
	Mineral Oil	APHA 5520 F
	Fluoride	APHA C
	None	None
	Heterotrophic Plate Count	APHA 9215 D
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	126, based on Thermo Fisher Application Noted 154
	Phenol	APHA 6420C, 24" Edition
	None	In-house method SGS-TM-ENVI-W-
	Organochlorine Pesticide	APHA 6630B, 24" Edition
	Conductivity	APHA 2510 B
	None	Boiling Cell Method
	None	QIAGEN Mericon? Bacteria Kit
	None	spp. by Gel Electrophoresis
	None	monocytogenes by Gel
	None	Real Time Polymerase Chain
	and Escherichia coli count	9222 H
	Coliform and Escherichia coli	Presence/absence Technique
	pH	APHA 4500-H* B
	Colour	APHA 2120B
	Turbidity	APHA 2130B
	Free Chlorine	HACH Method No . 8021
	Ammonia as N	HACH Method No . 8038
	as Fe	HACH Method No . 8008
	Manganese as Mn	HACH Method No . 8149
	Fluoride as F	HACH Method No . 8029
	Aluminium as Al	HACH Method No . 8326
	pH	APHA 4500-H* B
	Colour	APHA 2120B

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Turbidity	APHA 2130B
	Free Chlorine	HACH Method No . 8021
	Ammonia as N	HACH Method No . 8038
	as Fe	HACH Method No . 8008
	Manganese as Mn	HACH Method No . 8149
	Fluoride as F	HACH Method No . 8029
	Aluminium as Al	HACH Method No . 8326
	Total Dissolved Solids	APHA 2540. C
	Total Dissolved Solids	APHA 2540. C
Effluent Water	Potassium	APHA 3111 B
	Zinc	None
	Selenium	None
	Bromide	APHA 4110 (By ion chromatography)
	None	None
	pH Value	APHA 4500 H+
	Total Suspended Solids	APHA 2540 D
	BOD	APHA 5210 B
	COD	APHA 5220 D
	ICP (Pb, Fe, Ba, Mn)	APHA 3120 B
	Oil and Grease	APHA 5520 B
	Ammoniacal Nitrogen / Ammonia (as N)	APHA 4500-NHs B & C (Titrimetric Method)
	Fluoride	APHA 4110 B
	Nitrate Nitrogen	APHA 4500-NOs E
	Total Phosphorus	APHA 4500-P B & E
Effluent Water River Water Ground Water Potable Water Reverse Osmosis Water Boiler Water	Paraquat	In-House Method TOM 28, HPLC
	Glyphosate	In-House Method TOM 29, HPLC
	Total Dissolved Solids	APHA 2540 C
	Total Solids	APHA 2540 B
	Aminomethylphosphoric Acid (AMPA)	In-House Method TOM 31, HPLC
Environmental Monitoring	Nitrate	In-House Method TOM 13, based on
	Metals	None
	Tin	None
	Anion	None
	None	None
	None	None
	None	None
	BOD 3	DOE -" Reference Method
	None	None
	None	None
	Potassium	None
	Microbiological testing	In-house method 21BSAM-B081
	Microbiological testing	In-house method 21BSAM-B080
	Microbiological testing	In-house method 21BSAM-B081
	Microbiological testing	In-house method 21BSAM-B080

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	Colour ADMI	APHA 2120 F
	Mercury	In-house Method, CL/WT/007, based
	None	None
	None	None
	pH Value (pH)	APHA 4500-H* B, edition
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Aluminium	USEPA 6010 D (ICP OES)
	None	None
	Nitrate (as NO ₃ -• or	APHA E
	None	None
	Fluoride	APHA & D
	Colour (True & Apparent)	APHA 2120 C
	Total Coliform Count (TCC)	APHA 9221 B
	Total Nitrogen	In-house test method MKA TMO3 by TOC/TN Analyzer
	None	None
	Total Solid	2540 B
	None	None
	None	None
	None	None
	None	None
	pH value	APHA 4500-H* B Electrometric
	None	None
	None	None
	Particulate Matter	MS 1596: 2003 Determination of
	Heavy Metals:	None
	None	None
	None	None
	Moisture	(i) Gravimetric Method: BS:EN
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Metals	In-house Method PCL-HMW-01
	None	None
	None	None
	Turbidity	APHA 2130 B, 2005
	Turbidity	APHA 2130 B, 2005
	Biochemical Oxygen Demand	APHA 5210 B & C, 2005
	Biochemical Oxygen Demand	DOE 2019, Reference Method,
	pH	APHA 4500 H*B, 2005
	Metals by ICP	None
	Metals by ICP	None
	Metals by ICP	None
	None	In-house method, WI-TEC-S001,
	None	None
	None	None
	None	None
	Determination of Concentration and Mass Flow of Particulate	MS 1596: 2003
	Determination of Total Suspended Particulate Matter in	ASTM: D4096-91 (2003)
	Sound pressure level	Guidelines for Environmental Noise Limits and Control, Third Edition
	None	None
	None	None
	None	None
	Boron	APHA 4500-B C, 2005 APHA 4500-B C, 2017
	Sulphide	APHA 4500- D, 2005 APHA 4500- D, 2017
	Metal Analysis by ICP-OES	None
	Hydrocarbon	APHA 5520 F 2005
	None	None
	Hydrogen Bromide (HBr)	OSHA Method ID-165SG
	Temperature	APHA 2550 B, 2005
	None	None
	None	None
	Formaldehyde	In-house Method C/WTR/012
	None	None
	Aluminium	None
	Aluminium	None
	Nickel	APHA 3120 B, 24" Edition
	pH	APHA 4500 H*B
	pH	APHA 4500 H*B
	None	None
	None	None
	None	None
	COD	APHA 5220 D
	Heavy Metals	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Moisture	EPA Method 9000 (Karl Fischer Titration)
	None	EPA Method 1010 A
	None	Information Circular 8333,
	Total Bacteria Count	Compendium of Methods for the
	Aerobic Plate Count	In-house swab contact method
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
Environmental Monitoring Water Sewage	Tin	APHA 3111 B
	Calcium	APHA 3111 B
	Magnesium	APHA 3111 B
Environmental Monitoring Water Sewage Leachate Effluent Water	Free Chlorine	APHA 4500 Cl-G
	Phosphorus	APHA 4500 P-E
	Chromium, hexavalent	APHA 3500 Cr-D
	Nitrite	APHA 4500 NO2-B
	Chloroform	US EPA 5030 C & 8260 D
Environmental Monitoring Water Sewage Leachate Effluent Water River Water	pH	APHA 4500-H* B
	Biochemical Oxygen Demand (BOD) 5 days	APHA 5210 B (Using APHA 4500 O G DO meter)
	Manganese	APHA 3111 B
	Nickel	APHA 3111 B
	Zinc	APHA 3111 B
	Volatile Acid	APHA 5560 C
	Ammonia	APHA 4500-NHs B & C
	Cyanide	APHA C & D
	Total Kjeldahl Nitrogen	APHA 4500-Norg B -" Macro Kjeldahl
	Colour	APHA 2120 F
	Volatile Acid	In-House Method TOM 49 based on
Evaporated Milk	Total Milk Solids	AOAC 925.23 A (1995)
	Milk Solid	GB 13102-2022 (By calculation)
Fertilizer	Phosphorus (P)	In-House Method TOM(S)009 based
	Total P205	In-house Method (Ref. No. F3)
	None	None
	pH	In-house method TM-CR-03-005
	Calcium (as CaO)	MS 417: Part 8: 1997 / AAS

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Moisture	MS 417 : Part 2 : 1994
	Ammoniacal Nitrogen in Ammonium Chloride and Ammonium Sulphate (as % N)	MS 417 : Part 3 : 1994 (Distillation Method)
	Urea-Nitrogen (as % N)	MS 417 : Part 3 : 1994 (Urease Titration Method)
	Urea-Nitrogen (as % N)	In-house method (Ref. No. F5) Based on MS 417 : Part 3 : 1994 (Urease Titration Method)
	Nitrate-Nitrogen (as % N)	MS 417: Part 3 : 1994
	Total phosphorus (as % P2Os)	Part 4: MS 417: 1994 (Method 1)
	Citric Acid Soluble Phosphorus (as %)	Part 4: MS 417: 1994
	Water Soluble Phosphorus (as % P2Os)	Part 4: MS 417: 1994
	Total Potassium (as % K2O)	Part 5: MS 417: 1994
	Total Magnesium (as % MgO)	MS 417: 1994
	Boron (as %)	Part 7: MS 417: 2001 (Carmine Method)
	Boron (as %)	In-house method (Ref. No. F6) Based on MS 417 : Part 7 : 2001 (Azomethine Method)
	Calcium (as CaO)	MS 417 : Part 8 : 1994
	Sample Preparation	MS 417: Part 1: 1994-Clause 5
	Moisture	MS 417: Part 2: 1994-Clause 3
	Moisture	MS 417: Part 2: 1994
	None	None
	Moisture	n-house Method PBL/LTM/F1,
	Total Nitrogen	In-house method F05 based on MS ISO 13878: 2014
	Determination of Moisture	MS 417: Part 2: Clause 3, Method :
	Total Magnesium as MgO	In-House No. FT02 (Based on
	None	None
	Determination of Phosphorus,	In-House Method, TM-02
	Total Nitrogen (as N)	In-house Method, Ref. No. F2, based
Filter Membrane	Warfarin	NIOSH 5002
Food & Food Products	Moisture	In-House Method TOM (F) -" 001A
	Moisture	In-House Method TOM (F)001H
	Total Carbohydrate	In-House Method TOM (F) 001F
	Energy	In-House Method TOM (F) 001E
	None	Keith Ito, 4th Edition America Public Health Association, Washington D.C
	None	D23B/7(c1), D23B/7(c2), D23B/7(c3)
	Aerobic Plate Counts	FDA-BAM Chapter 3 (2001)

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Food Product	Nitrite & Nitrate	In-House Method TOM(F)019 based
	Determination of the Glycaemic	ISO 26642:2010
	None	None
	None	test kit
	None	None
	None	None
	None	None
	Total Fat	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Total Sugar	In-house method
	Fat	AOAC 989.05
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Detection of Salmonella spp.	JKM M 3101
Fruits & Vegetables	Pesticides	None
	Organonitrogen	In-House Method, Ref. No. MOH:
General Air Samples	Total Particulate	NIOSH 0500
Ground Water	Iron	APHA 3111 B
	Lead	None
	Beryllium	None
	Sulphate	None
	Bromodichloromethane	US EPA 5030C & 8260D (2017)
	None	None
	Iron, Chromium, Calcium &	Determination of Metals by Atomic
	None	None
	None	None
	Magnesium	JKM E 0403 based on APHA 3112 B:
	None	Quality, 1997 Vol. 3
	Color (Hazen)	In-house Method No: STP/Chem/W01 Based on Merck
	Determination of Total	APHA 2540D, edition 2005
	None	None
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Total Suspended Solids (TSS)	APHA 2540 D
	Free Chlorine	HACH 8021, 9 Edition (2014)
	Mercury (Hg)	In-House Method TM/WEP/012 based on Agilent Application Note
	Polynuclear Aromatic	USEPA 3510C
	Pseudomonas aeruginosa	APHA 9213 F
	None	None
	None	None
	None	None
	Tin	3120 B
	Magnesium	3120 B
	None	None
	Bacterial Endotoxins	BP 2018, Vol. XIV C, Method C:
	None	None
	pH	APHA 4500-H+ B
	None	None
	None	None
	Temperature	APHA - 2550B
	Fluoride as F	APHA - 4500F-B&D
	Cadmium as Cd	APHA - 3030 E & F (HNO ₃ or HNO ₂ -
	Barium as Ba	None
	Sodium as Na	None
	Nitrite as NO ₂	None
	Bromoform	None
	Dimethoate	None
	Gamma-lindane	None
	Acenaphthylene	None
	n-Dotriacontane	None
	(Refer Appendix II)	None
	Total Coliform	APHA - 9221B; 2017 (MPN Method)
	None	and APHA 3500 Cr B, Edition
	Acidity	APHA 2310 B, 2017
	None	None
	None	None
	None	None
	Bromate	S-170 & APHA 4110 B
	None	None
	Color (color units)	APHA 2120 C 2017
	Oil and Grease (Mineral)	APHA 5520 F, 2017
	Metals by Inductively Coupled Plasma	APHA 3120 B
	None	None
	Faecal Coliform	APHA 9222 D
	Lead	None
	None	None
	Endosulfan Hexachlorobenzene	None

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	Cobalt	APHA 3120 B, Edition
	(Refer to Appendix 8 for the list of compounds)	Method 8260C: 2006
	BODs at 20°C	APHA 5210 B & G
	None	(Membrane Filtration Method)
	None	None
	None	None
Ground Water Potable Water	None	HACH 8196
	Iodine	In-House Method TOM 51 based on HACH 8031
Hazards Ambient Air	None	based on OSHA PV 2067
Inorganic Gases	Mercury	NIOSH 6009
Leachate	Sodium	APHA 3111 B
	Manganese	None
	Thalium	None
	Nitrite	None
	Cadmium (Cd)	None
	None	Liquid Extraction Gas
	None	Ordinate Spectrophotometric Method
	Specific Gravity	ASTM D 891-09
Leachate Effluent Water	None	(2005)
Liquid & Solid Sample	General techniques for obtaining	ASTM E1252 (FTIR) (2013)
Liquid / Tablet	None	HPLC with UV detector
	Retinol Palmitate (Vitamin A)	In-House Method TOM F020 based
Materials	None	on APHA 4500-N Macro Kjeldahl
	None	4995}, Method 955-04 and
	Total Nitrogen	Based CN on Nitrogen in Fertilizer Application
	None	None
	None	None
	None	None
	None	(HPLC-UV or UHPLC-UV)
	None	None
	None	None
	None	None
	None	Based on:
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	based on MS 417: Part 2: 1994 (First
	Vickers Hardness 1 gf to 30 kgf (0.1 kgf and 1 kgf load)	E384-2017
	ii Lead (Pb)	None
	None	on BS EN 14084:2003
	None	based on MS 417: Part 3: 2020,
	None	Analysis: The Johan Kjeldahl
	None	based on MS 417: Part 3: 2020,
	N)	Analysis: The Johan Kjeldahl
	None	based on MS 417 Part 7:2020,
	Fertilizers	None
	None	None
	Vickers Hardness 1 gf to 30 kgf (0.1 kgf and 1 kgf load)	E384-2017
	Volume Resistance or Resistivity	None
	None	ANSI/ESD STM 11.12-2015
	None	None
	None	Method)
	None	Based on MS 417: Part 2 : 1994
	None	1: Atomic Absorption
	None	Method)
	None	Based
	None	on MS 417-3: 2020, Clause 12,
	None	Based on MS 417-4: 2020, Clause
Mce Filter Paper	Elemental -" Metals	NIOSH 7300
Meat	Chloramphenicol	In-House Method TOM(F)016 based
	Antibacterials (Qualitative)	In-house Method No.: MOH
	Enrofloxacin (Qualitative)	In-house Method No.: MOH
	Qualitative	None
	Lead, Antimony, Tin, Calcium,	based on US FDA Elemental
	Lead, Antimony, Tin, Calcium,	based on US FDA Elemental
	ether extract in meat	None
	Ash	AOAC 920.153
Milk	None	None
	925.10	
	Ash	AOAC Official Method 945.46
	Total Nitrogen & Protein	AOAC Official Method 991.20
	Fat	AOAC Official Method 989.05
	Carbohydrate	In-House Method TOM (F) -" 001F by
	Aflatoxin M1	In-House Method MOH L03-007 :
	None	925.23A, and Pearson's Chemical
	Fat	AOAC 989.05 (Modified Mojonniar
	None	None
	None	based on Romer-™s Elisa Method
	MC-Media Pad	based on AOAC 997.02
	Fat	AOAC 989.05
	Acidity	AOAC 947.05

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	Brucella spp.	In-house Method, Ref. No. MOH: K03-
Mineral Water	Chloride	In-House Method TOM 38, based on
	Magnesium	None
	Antimony	None
	None	None
	Arsenic	None
	Styrene	None
	None	None
	None	Method 032
	Chromium as Cr	None
	Lead	None
	None	None
	None	None
	Boron	None
	None	None
	None	None
	Aluminium	None
	None	None
	None	None
	None	None
	None	None
	Total Dissolved Solids	APHA! 2540 C
	None	None
	e Barium	None
	None	None
	Cadmium (Cd)	None
	None	None
	(VOC as listed in Appendix 3)	Spectrometry
	CaCO ₃	None
	Aluminium as Al	APHA - 3500Al-B
	Chromium as Cr	None
	None	None
	None	digestion
	Total Coliform (100 ml)	APHA - 9222B; 2017
	None	None
	Antimony as Sb	None
	Chromium Hexavalent	APHA 3500-Cr B
	None	None
	None	None
	Hexavalent Chromium	APHA 3500 Cr B, Edition
	Chloride	APHA 4500-Cl B, Edition
	Fluoride as F	Ion Chromatography with Chemical
	None	None
	(Monochloramine and	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	None	None
	Alkalinity	APHA 2320 B, 2017
	Free Carbon Dioxide	APHA 4500-CO ₂ C, 2017
	Sodium (Na)	APHA 3120 B 2017
	None	None
	None	None
	Dieldrin	None
	None	None
	None	None
	None	None
	None	None
	Aluminum as Al	None
Non-alcoholic Beverage /	Benzoic Acid	In-House Method TOM(F)014 based
Oil & Fats	None	None
	FFA	AOCS Ac5-41, 1999
Organic Aerosol	Paraquat	NIOSH 5003
Organic Gases On Other Solid Sorbents, Solid Sorbent Tube	Formic Acid	NIOSH 2011
	Acid, Inorganic Hydrofluoric Acid (HF) Hydrochloric Acid (HCl) Nitric Acid (HNO ₃) Hydrobromic Acid (HBr) Sulfuric Acid Phosphoric Acid	NIOSH 7903
	Methanol	NIOSH 2000, Issue 3
	Formaldehyde	NIOSH 2541, Issue 2
Organics Gases On Charcoal	Benzene	NIOSH 1501
Palm Oil & Products	Acidity (Free Fatty Acids, FFA)	MPOB p2.5 (2004)
Palm -" Oil Mill Effluent	Biochemical Oxygen Demand	DOE, 2019 Alternative Method
Petroleum Products Transformer Oil -	Colour	ASTM D1500 (2017)
	Interfacial Tension	ASTM D971 (2020)
	Flash Point	ASTM D93 (2018)
	Dissipation Factor (Power Factor) & Relative Permittivity (Dielectric Constant)	ASTM D924 (2008)
	Water content	ASTM D1533 (2012)
	Phenolic Antioxidant: 2,6-Ditertiary-butyl paracresol (DBPC)	ASTM D2668 (2013)
	2,6-Ditertiary-butyl phenol (DBP)	
Pharmaceutical Products	Ascorbic Acid (Vitamin C)	In-House Method TOM F021 based
	Total Plate Count	BP 2004
	None	None
	Anti-Salmonella Activity by 96-	In-house method 21BAMC-B046
	Nystatin Assay	In-house method,
	Amoxicillin Assay	In-house method 41HPLC-C093
	Nystatin Assay	In-house method, 41HPLC-C001,
	Amoxicillin Assay	In-house method 41HPLC-C093

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	Rapid Yeast & Mold Count Plate
	Anti-Salmonella Activity by 96-	In-house method 21BAMC-B046
	None	onAOAC Official Method 999.10
	Assay of active ingredient:	None
	None	None
	Assay of active ingredient:	None
	None	None
	None	None
	Mercury	BP 2013, Vol. V, Appendix VII & IID
	Cd, Pb, As and Hg	In-house method
	Total Aerobic Microbial Count	USP 40 (61):2017
	Pseudomonas aeruginosa	USP 40 (62):2017
	None	None
	Bacteria	None
	Mercury	BP 2019, Vol. V Appendix VII & IID
	None	None
	None	None
	Cadmium, Lead	US EPA 6010D (Determination)
	None	None
	Arsenic	In-house Method SOP-0217-1017,
Potable Water	Copper	None
	Vanadium	US EPA 6010 B 1996 by ICP-OES
	Phosphate	None
	Aluminium	None
	Bromoform	None
	Semivolatile Organic	None
	Metals: Copper, Nickel, Zinc,	JKM E 0401 based on APHA 3111 B
	None	Reflux Method: Chemical Oxygen
	None	Ca D: Determination of Calcium/Calcium
	(0 -" 150 mg/L COD)	8328 -" Closed Reflux, Colorimetric
	Determination of Total Coliform	JKM M 020, Multiple Tube Method
	Intestinal Enterococci	Membrane Filtration Method
	None	Examination of Coliforms and
	pH Value	APHA 4500 H+
	Chloride	APHA 4110 B
	ICP (Na, Fe, Zn, Mn, Mg, Cu, Pb)	APHA 3120 B
	Turbidity	APHA 2130 B
	Sulphate	APHA 4110 B
	Oxidisability	APHA 4500 KMnO4 B (Spectrometric Method)
	None	None
	None	None
	Zinc (2n)	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Heterotrophic Plate Count (Pour Plate)	APHA 9215 B (2017)
	Clostridium perfringens	ISO 14189: 2013
	Total Plate Count	In-house method LWM 3 based on
	Enumeration of Sporulate Sulfite	JKM M 2039, ISO 6461/2:1986 Water
	Bicarbonate Alkalinity as	APHA - 2320B
	Sulphate as	None
	None	None
	None	Based on Merck Chromocult
	Metal Analysis by ICP-OES	None
	None	None
	None	None
	None	None
	None	None
	Mercury (Hg)	In House Method 0556 based on
	None	None
	Chromium	None
	None	None
	None	None
Potable Water Reverse Osmosis Water	Dissolved Oxygen	APHA 4500-0 G Membrane Electrode Method
	Nitrate	APHA 21° edition (2005)
Potable Water Reverse Osmosis Water Boiler Water Mineral Water	Chemical Oxygen Demand (COD)	In-House Method TOM 04
	Suspended solid	APHA 2540 D
	Cadmium	APHA 3111 B
	Total Chromium	APHA 3111 B
	Lead	APHA 3111 B
	Copper	APHA 3111 B
Ptfe Membrane Filter	Alkaline dust	NIOSH 7401
Reverse Osmosis Water	Chromium	None
	Silica	None
	Cation	None
	Antimony	None
	Dibromochloromethane	None
	Compounds	None
	None	None
	None	None
	None	None
	Zinc	None
	(Membrane filtration)	None
	Zinc	3120 B
	None	None
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	Endotoxin Test
	None	None
	250mL	(Enumeration)
	None	APHA 9221 B, Edition (2012)
	None	None
	Free, Combined and Total Residual Chlorine (DPD)	In-House Method 0501 based on Palintest Comparator
	Total Alkalinity as CaCO ₃	APHA 2320 B
	None	None
	Copper Barium	APHA 3125 B (ICP-MS), 24" Edition
	None	APHA 4500 OG
	None	APHA 9222
	Streptococcus Count	(Membrane Filtration Method)
Reverse Osmosis Water Boiler Water Mineral Water	Sulphide	In-House Method TOM 22, based on HACH 8131
	Oil & Grease	In-House Method TOM 23, based on APHA 5520 B Partition Gravimetric Method
	Mercury	APHA 3112 B Cold-vapor Atomic Absorption Method
	Arsenic	APHA 3114 B Hydride System
	Fluoride (Preliminary Distillation step)	APHA 4500 - F-B
	Fluoride	APHA D
	Hydrazine	In-House Method TOM 53 based on HACH 8141
	Formaldehyde	In-House Method TOM 54 based on HACH 8110
River Water Ground Water	Cyanide	In-House Method TOM 55 based on HACH 8027
	2,4-D	In-House Method TOM 71 based on
	Temperature	APHA 2550 B Laboratory and Field Method
River Water Ground Water Potable Water	None	None
	Boron	In-House Method TOM 16, based on HACH 8015
	Phenol	In-House Method TOM 18, based on HACH 8047
Sauces	None	on Agilent Application Note 5989-22855:2008)/HPLC
	None	MS 1120.1988
	Total Nitrogen	MS 1120: 2004
	Acidity	MS 1120: 2004
	None	None
	None	None
	Salt (as Sodium Chloride)	MS 1120:2004
	None	Based on GB 5009.4-2016

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Sediment	Total Plate Count	In-house method LWM 3 based on AOAC 966.23 (2007)
	Acidity	MS1120:2004
	None	None
	procedure (TCLP)	None
	Silver (Ag), Aluminium (Al), Barium (Ba)	US EPA 3050 B (Acid digestion)
	Heavy Metals	None
	Organic Carbon	USEPA 3050B, 1996
	Antimony (Sb)	MS 2469: 2012
	Silica Gel Treated N-Hexane sand, silt and clay)	& USEPA 6010 B, Revision 2,
	compounds)	In House Method 0559 based on BS1377 Part 2 1990
	Al, V, Mo, Sb, Fe, Li, Sr, Sn, Ti	Trap GC-MS)
	Sulphate	EPA Method 3050B: 1996; EPA Method 6020B: 2014 (ICP-MS)
	Nitrogen (as TKN)	BS1377-3:2018 (A1:2021) (Gravimetric)
		In-house method, SGS-TM-ENVI-S- 005, based on EPA 1687
Sewage	Iron	None
	Silver	None
	Chloride	None
	Sulphate	APHA E, 21% edition
	Determination of Total	APHA 2540D, edition 2005
	None	None
	Dissolved Oxygen	APHA 4500-0 G
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
Soil, Sludge And Solid Sorbent Tube	Toxicity characteristics leaching	US EPA 1311
Surface Water	Xylene	NIOSH 1501
	Ethylbenzene	NIOSH 1501
	Toluene	NIOSH 1501
	n-hexane	NIOSH 1500
	Alcohol (IPA)	NIOSH 1400
	None	None
	Lead, Cadmium, Manganese,	AAS Direct Air -" Acetylene Flame
	None	Demand
	None	hardness
	None	None
	& Faecal Coliform	WHO Guideelines for Drinking Water
	None	ISO 7899-2: 2002 (E)

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Total Coliform & Escherichia	JKM M 2040, In-house Method based
	None	Turbidity Meter
	Sulphide (1)	APHA F
	Calcium as Ca	None
	Iron	None
	Oil and Grease	APHA 5520B
	Escherichia coli	MS ISO 9308-1:2011 (Membrane Filtration Technique)
	None	None
	Phosphate	APHA 4500-P Method D, Stannous Chloride Method, Edition
	None	APHA 4500-NOs E, 22 nd Edition,
	None	None
	None	None
	Chromium	None
	None	None
	pH Value	APHA 4500-H* (APHA Method 21*
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	e Arsenic	None
	None	None
	None	Technique
	None	None
	None	Method Edition (2005)
	Alkalinity	APHA 2320 B Titration Method 21s
	None	Method by Discrete Analyzer
	Caustic Alkalinity as CaCO ₃	APHA - 2320B
	Barium as Ba	None
	None	(MPN Technique)
	Conductivity	APHA 2510 B, 2017
	Chlorate	Metrohm IC Application, Note No.
	None	Metrohm Technical Note
	Hydrocarbon	APHA 5520 F 2017
	Vanadium (V)	APHA 3120 B, 2017
	Free Carbon Dioxide (by calculation)	APHA 4500 CO ₂ D, 2017
	None	None
	None	APHA 2550 B, 2017
	Chromium, Cr	None
	VOCs	EPA Method 5030B: 1996; EPA
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Waste Water	None	(Membrane Filter Technique)
	None	None
	None	(2010)- Part 6B
	Count	(2012)
	Coliform & Escherichia Coli	JKM M 2003, Most Probable Number,
	None	None
	Oil and grease	APHA 5520B: 2005
	None	None
	None	None
	None	APHA 9222 (2017)
	Beta-BHC	None
	Total Suspended Solids	APHA - 2540D
	Mercury as Hg	APHA - 3112B
	Antimony as Sb	Coupled Plasma Optical Emission
	Chromium as Cr	None
	Bromide as Br	None
	Fecal Coliform	APHA - 9221E.1; 2017 (MPN
	Nitrate	APHA 4500 NOs 21° Edition
	None	(by Calculation)
	Formaldehyde	UHPLC based on EPA 1667 Rev. A
	None	APHA 3030 E & APHA 3030 F, 21%
	None	None
	None	None
	None	None
	liquor (MLSS)	None
	liquor (MLSS)	None
Water	Nickel	None
	Strontium	None
	Fluoride	None
	None	None
	Metals	None
	None	None
	None	None
	None	None
	COD	JKM E 0019 based on APHA 5220 Open
	Calcium/Calcium Hardness	JKM E 0015 based on APHA 3500 -"
	Chemical Oxygen Demand	JKM W 0401 based on HACH Method
	Coliform (MPN/100 ml)	ISO 9308 -" 2 (2012)
	E. coli (MPN/100 ml)	ISO 9308 -" 2 (2012)
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	the Spores of Sulfite-Reducing Anaerobes (Clostridia) -" Part 2:	ISO 6461/2-1986 (E)
	E. Coli and Coliform	Water Quality-Enumeration of E.coli
	Intestinal enterococci	MOH (2)
	None	None
	None	None
	Coliform Count	APHA 9221 B
	E.Coli Count	APHA 9221 B, 9225
	Total Aerobic Plate Count	APHA 9215 B
	Total Fecal Coliform Count	APHA 9221 E
	Heterotrophic Plate Count	AS/NZS 4276.3.1 (2007)
	pH	APHA 4500 - H* B, 21% Edition
	Chlorine - Free	HACH 8021 and HACH 10069,
	Fluoride	APHA-4110 B, 215 Edition
	Biological Oxygen Demand, 5	APHA-5210 B, 215 Edition
	Free Chlorine MR	HACH method 10245, 5* Edition,
	Heterotrophic Colony Count	AS 4276.3.1-1995
	Zinc Manganese	APHA 3030E, 3120B Edition 2012
	None	None
	None	None
	Determination of Organochlorine	None
	Bacillus cereus	In-house method 21BAMC-B036
	None	None
	Pseudomonas aeruginosa	In-house method 21BAMC-B064
	Total Coliforms	In-house method 21BMPN-B075
	Bacillus cereus	In-house method 21BAMC-B036
	Pseudomonas aeruginosa	In-house method 21BAMC-B064
	Total Coliforms	In-house method
	None	PCL)
	Acute Hepatopancreatic	In-house method SD?QC-WI-305 :
	None	None
	Pathogen	, , , APHA 9222A,
	None	None
	Temperature	APHA 2550 B
	Phosphorus	APHA 4500 P C
	Bromodichloromethane,	In-house Method, CL/WT/008 based
	Metals by ICP	APHA 3120 B
	Mercury	APHA 3112 B
	Chlorpyrifos	In-house Method, CL/WT/011,
	Aluminium	APHA 3125 B (ICP-MS)
	Gross Alpha, Gross Beta	ISO 11704:2018
	Heterotrophic Plate Count	APHA 9215 B (Pour Plate Method)
	pH	APHA - 4500-H B
	None	ASTM D 1293-18
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	ASTM D 1293-18
	None	None
	Turbidity	APHA 2130 B
	pH	APHA 4500 H* B 23rd Edition
	Total solid dried at 103°C -" 105 °C	APHA 2540 B (2005)
	Enumeration of Plankton	Marine Water (PBPCL-STP-PP-1)
	None	APHA 4500 Norg B (2017) and
	None	USP Chapter Bacterial
	Coliform, Fecal Coliform &	APHA 9222 B.G.H.D
	None	APHA 3111 B, 2017
	None	APHA 3111 B, 2017
	None	None
	None	from HACH Method 8023, DR3900
	PH test	APHA 4500 H*B Edition 2017)
	Total suspended solids	APHA 2540 D Edition 2017)
	Turbidity Test	APHA 2130 B Edition 2017)
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	MLSS	None
	Hydrocarbon, PAH	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Selenium (Se) Chromium (Cr)	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Ammonical Nitrogen	APHA 4500-NH3
	None	None
	Lead	APHA 3120 B
	Tin	None
	Iron	None
	Heterotropic plate count	APHA 9215 D

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	Ammonia	ASTM D1293
	None	None
	None	None
	None	None
	and Escherichia coli	None
	None	filtration)
	Clostridium perfringens	ISO 14189: 2013 (E)
	None	None
	None	None
	None	None
	None	(2005)
	None	21% Edition (2005)
	Colour	APHA 2120 C 2005
	Determination of Volatile	Method EPA 524.2 By Purge & Trap
	Oxygen Demand (COD) for High	APHA Method 5220D
	None	In-house Method JKM W 0502,
	None	on APHA 4110 B-"Ion
	Colony Count at 36°C	JKM M 2038, ISO 6222:1999 (E)
	Intestinal Enterococci	i) WI 16 -" Sample Preparation for
	Enumeration of Clostridium	JKM M 2035
	Detection of pathogenic	JKM B 0201 Detection of pathogenic
	Identification and Quantification	JKM B 0406
	pH	APHA - 4500-H B
	None	None
	None	None
	None	None
	None	None
	Boron	HACH METHOD 8015
	None	None
	E. coli	APHA 9221 F (MPN Method)
	None	None
	Total Organic Carbon	APHA 5310 C
	Heterotrophic plate count	APHA 9215 B, 22"4 Edition (2012)
	None	(Membrane Filtration Technique)
	None	None
	Metals by ICP	None
	None	None
	None	None
	None	None
	None	None
	None	None
	pH	ASTM D 1293-2005 (Method B) APHA 4500 H* B 2005/2017
	pH	ASTM D1293-2005 (Method B) APHA 4500 H* B 2005/2017

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	Turbidity	APHA 2130B
	On-site Sampling & Testing (pH Temperature, Turbidity)	In-house Method SOP-0222-2001 & SOP-0222-2003
	Coliform	APHA 9221 B, Edition, 2005
	Heterotrophic plate count in	APHA Method 9215 D, Edition,
	None	None
	None	None
	pH Value	BS 1377-3 : 2018 Clause 12
	pH Value	BS 1377-3 : 2018 Clause 12
	None	None
	Calcium Hardness as CaCO ₃ ,	APHA 3500-Ca B, 2017
	Magnesium (by Calculation Method)	APHA 3500-Mg B, 2017
	Nitrate	APHA E, 2017
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Aluminium	None
	None	None
	Organochlorine Pesticide	APHA 6630 B, Edition
	Ammoniacal Nitrogen	APHA F, 24" Edition
	Arsenic	APHA 3125 B, Edition
	Mercury	In-house method, SGS-TM-ENVI-003, based on APHA 3125 B
	2,4-dichlorophenoxyacetic acid (2,4-D)	In-house method, SGS-TM-02-045, based on Agilent Application Note 5991-5731 EN (LCMSMS)
	Heavy Metals by ICP-MS	None
	Endotoxin	Test for Bacterial Endotoxin, BP 2022
	pH	APHA 4500 H*B
	Oil & Grease	APHA 5520 B
	Color	APHA 2120 B
	Color	APHA 2120 F
	pH	APHA 4500 H* B
	Turbidity	APHA 2130 B
	Conductivity	APHA 2510 B
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	None	None
	Escherichia coli and coliform	ISO 9308-1: 2014 (E) / Enumeration
	Pseudomonas aeruginosa	ISO 16266:2006 (E) / Detection and
	Ammonium nitrogen	BS 6068: Section 2.7:1984 ISO 5664:1984
	Chemical Oxygen Demand	BS 6068: Section 2.34:1988
	Suspended solids	BS 2690-Part 120:1981
	Dissolved solids	BS 2690-Part 121:1981
	None	ASTM D 523-82
	COD	APHA 5220 D
	None	None
	Free Chlorine	APHA' 4500 -" CI G
	Count	(Pour Plate, Spread Plate and
	Anaerobes (Clostridia)	BS 6068-4:9: 1993
	Gross Alpha & Gross Beta	None
	Arsenic as As	None
	Antimony as Sb	None
	Aluminium as Al	None
	Beryllium as Be	None
	Cadmium as Cd	None
	Chromium as Cr	None
	Lead as Pb	None
	Silver as Ag	None
	Selenium as Se	None
	Thallium as TI	None
	Mercury as Hg	In-house Method LWI-MWE 037 based on APHA 3112 B by
	Mercury as Hg	Mercury Analyser
	Nitrate	In-house Method LWI-MWE 032 based on HACH Nitrate
	Nitrate	Test Comparator
	Sulfide	HACH Method 8131
	Chlorine, Free Residual	In-house Method LWI-MWE
	Chlorine, Free Residual	034 based on DPD-Palintest
	Chlorine, Free Residual	Test Comparator
	Total Chlorine	In-house Method LWI-MWE
	Total Chlorine	035 based on DPD-Palintest
	Total Chlorine	Test Comparator
	Colour (ADMI)	APHA 2120 F
	Heterotrophic Plate Count	None
	Pseudomonas aeruginosa	In-house Method LWI-MME (APHA) 007
	Pseudomonas aeruginosa	based on APHA 9213 E, 2020

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	Escherichia coli and Coliform	Escherichia coli and Coliform Bacteria. Part 1: Membrane filtration method
	Escherichia coli and Coliform	Method No: MOH (1)
	Escherichia coli and Coliform	ISO 29981 : 2010 (E), IDF 220 :
	Escherichia coli and Coliform	2010 (E) Milk Products -
	None	None
	None	None
	None	None
	None	None
Water Sewage Leachate	Nitrogen Ammonia	In-House Method TOM 14, based on HACH 8038
	Total Phosphorus	In-House Method TOM 15, based on
Workplace Environment And	Glyphosate	In-House Method TOM (A) -" 005

SCOPE OF TESTING : MICROBIOLOGY

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Effluent	None	None
	None	None
	Sulphate	None
	Reference Method (Except for	None
	None	None
	Biochemical Oxygen Demand	DOE Method (1985):
	Suspended Solids	DOE Method (1985) :
	Biochemical Oxygen Demand	DOE Method: 4" Edition, 2019,
	Temperature	APHA 2550B, 2005
	None	None
	None	None
	None	None
	Aluminium (Al)	None
	None	None
	None	None
	Total Dissolved Solids	APHA - 2540C
	None	APHA - 4500F-B&C
	Metals:	USEPA Method 6010D; Inductive
	Calcium as Ca	HCl Digestion)
	Sulphate as SO4	None
	Nitrite Nitrogen as N	APHA 4110B
	@ 30 °C for 3 Days	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	(by calculation)
	None	based on APHA -" 4500 Norg B, 21%
	pH	APHA 4500-H*B
	Temperature	APHA 2550 A, B
	Oxygen (Dissolved)	APHA 4500-0 G
	Free Chlorine	HACH Method 8021
	Temperature	APHA 2550 B
	pH	APHA 4500 H*B
	pH	APHA 4500 - H*B
Environment & Indoor Air	Air Monitoring	Sedimentation method, CMMEF, 5* edition, Chapter 3 (2015)
Environmental Sample Effluent River Water Drinking Water Seawater	None	None
	Fecal Coliform (MPN/100ml)	APHA 9221 B & 9221 E
	Escherichia coli	APHA 9213 D Membrane Filtration Technique
	Fecal Coliform	APHA 9222 D Membrane Filtration Technique
	Total Coliform	APHA 9222 B Membrane Filtration Technique
	Yeast & Mould	APHA 9610 C Enumeration Fungi: Spread Plate Technique
	Fecal Streptococcus and	APHA 9230 B (MPN)
Equipments, Utensils & Environment	Swab Sampling	Surface contact swab method, CMMEF, 5" edition, Chapter 3 (2015)
Microbiological	Total Coliform Count	APHA 9221 B
	Heterotrophic Plate Count/	APHA 9215 B (Pour Plate)
	Total Coliform & E.coli Count	In-house test method MKA based
	Total Coliform & E.coli Count	In-house test method MKA TM07 based
	Fecal Enterococcus/Streptococcus	APHA 9230 C
	Quantitative suspension test for	EN 13727: 2012+A2: 2015 (E)
	Quantitative suspension test for	EN 1040: 2005 (E)
	Quantitative suspension test for	EN 1656: 2019 (E)
	Determination of the	VAH Method 7
	Quantitative suspension test for the	EN 14675: 2015 (E)
	Escherichia coli and coliform	ISO 9308-1:2014 (E)
	None	None
Microbiological Tests On Foods Food Products	Bacillus cereus (CFU/g)	AOAC Official Method 980.31
	Staphylococcus aureus (CFU/g)	AOAC Official Method 975.55
	Salmonella (Present/ Absent)	AOAC Official Method 967.26
	Total Coliform Count (CFU/g)	AOAC Official Method 991.14
	Escherichia coli (CFU/g)	AOAC Official Method 991.14
	Yeast & Mould (CFU/g)	AS 5013.29-2009: Examination for specific organisms-colony count of yeasts and mould

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
River Water	Cadmium	None
	Aluminium	None
	Nitrate	None
	Heterotrophic Plate Count (CFU)	APHA 9215 D
	None	None
	None	None
	Color (ADMI)	APHA 2120 F
	None	None
	None	HACH Method 8039
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Colour ADMI	APHA 2120 F
	Fecal Coliform	APHA 9221 E
	Escherichia coli (Membrane Filter Technique)	APHA 9222 G, Edition, 2005
	Nickel (Ni)	None
	5 Days @ 20°C	23°4 Edition (2017)
	Iron (Fe)	None
	Conductivity	APHA 2510 B
	Temperature (in situ)	In House OEL ? SP/23-01 Based On
	Fecal Coliform	APHA 9222 D
	Colour	APHA - 2120B
	Sulphide	APHA - 4500S-F
	Metals:	APHA - 3120B; Inductive Coupled
	Metals:	USEPA 200.8(ICPMS)
	Nickel as Ni	USEPA 200.8(ICPMS)
	Anions:	APHA - 4110 B; Ion
	Trihalomethanes:	APHA - 6200 B (GCMS)
	Phorate	None
	Beta-lindane	None
	Free Carbon Dioxide	APHA-4500CO2-C
	Acenaphthene	None
	Trichlorophenoxypropionic Acid)	University of Technology (HPLC)
	n-Hentriacontane	None
	Heterotrophic Plate Count (35°C)	APHA - 9215B; 2017 (Pour Plate
	None	None
	Uranium (U)	In House Method 0582 based on
	Oil and Grease (Emulsified	APHA 5520 B & F, 2017
	None	None
	Total Phosphorus	USEPA Method 200.7
	Total Phosphate	USEPA Method 200.7
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Enumeration of Escherichia coli	APHA 9221 G
	Standard Total Coliform	APHA 9222 B
	Colour (ADMI)	APHA 2120 F, 24" Edition
	Petroleum Hydrocarbon (C6-C10)	In-house method SGS-TM-ENVI-S- 001 (Solvent Extraction / Purge-and- Trap GC-MS)
	None	018 based on APHA 9222 B (Membrane Filtration)
	Sulphite -" Reducing Anaerobes	ISO 6461/2:1986 (Membrane
	Total Coliform Count	APHA 9222 B
	Total Dissolved Solid	APHA 2540 C
	Barium as Ba	None
	None	None
	None	None
Treated Water	None	None
	Coliform & Escherichia Coli	APHA, Part 9222A, Edition,
	Chlorine -" Total	HACH 8167 and HACH 10070,
	Phosphate	None
	None	None
	Ammonia	Selective Electrode Method
	Total Dissolved Solids as Sodium Chloride	In-house Method, AIR 001 based on Orion Star A112 Conductivity Meter Instruction Manual
	Detection and Identification of	JKM M 2032 (Membrane Filter
	None	None
	None	None
	None	None
	Detection and Identification of	JKM M2032, Membrane Filtration
	pH	HACH Method (Senslon + pH1)
	Aluminum	HACH Method No . 8326
	Detection of Coliform	Colilert Method (IDEXX)
	Copper (Cu)	None
	Aluminium as Al	None
	Potassium as K	None
	Chloroform	None
	Sulfotep	None
	Aplha-lindane	None
	2-Methylnaphthalene	2008) (GCMS)
	2-Chlorobiphenyl	525.3(GCMS)
	n-Nonacosane	None
	None	None
	Escherichia coli	APHA 9221G.2; 2017 (MPN
	(Clostridia) (100 ml)	None
	None	None
	Free Chlorine, High Range	HACH Method No . 10069
	Turbidity	APHA 2130 B
	pH	APHA 4500 - H*B
	Color	HACH Method No. 8025

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Chlorine, Free	HACH Method No. 8021
	Free Chlorine, High Range	HACH Method No. 10069
	Simultaneous Detection of Total	APHA 9223 B

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