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LABORATORY LOCATION/ CENTRAL OFFICE:	Chemsain Konsultant Sdn. Bhd., Labuan Lot No. 31, Block D, Lazenda Warehouse Phase 3, Jalan Rancha- Rancha 87000 WP Labuan , 87000, WILAYAH PERSEKUTUAN LABUAN MALAYSIA	
ACCREDITED SINCE	OC ADDIL 2025	
ACCREDITED SINCE :	06 APRIL 2025	
FIELD(S) OF TESTING:	CHEMICAL	

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:	Chemsain Konsultant Sdn. Bhd., Labuan Lot No. 31, Block D, Lazenda Warehouse Phase 3, Jalan Rancha- Rancha 87000 WP Labuan , 87000, Wilayah Persekutuan Labuan
FIELD(S) OF TESTING:	CHEMICAL,

SCOPE OF TESTING: CHEMICAL

Material / Product Tested	Type Of Test / Properties	Standard Test Methods /
	Measured / Range Of	Equipment / Techniques
	Measurement	
Aviation Fuel	Freezing Point	ASTM D2386-19
	Determination of Total Sulfur in	ASTM D 5453
	Light Hydrocarbon, Spark	None
	Ignition Engine Fuel, Diesel	None
	Engine Fuel and Engine oil by	None
	Ultraviolet Fluorescence	None
	Sulfur in Petroleum and	ASTM D4294
	Petroleum Products by Energy	None
	Dispersive X-ray Flourescence	None
	Spectrometry	None
	Freezing point of Aviation	ASTM D2386
	Fuels	None
	Density, Relative Density and	ASTM D4052

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Material / Product Tested	Type Of Test / Properties Measured / Range Of	Standard Test Methods / Equipment / Techniques
	Measurement	None
	API Gravity of Liquids by Digital	
	Density Meter	None
	Distillation of Petroleum Product	ASTM D86
	and Liquid Fuels at Atmospheric	None
	Pressure	None
	(Thiol Mercaptan) Sulfur in	ASTM D3227
	Gasoline, Kerosine, Aviation	None
	Turbine and Distillate Fuels	None
	(Potentiometric Method)	None
	Gum Content in Fuels by Jet	ASTM D381
	Evaporation	None
	Aviation Fuel Flash Point Abel	IP 170/ EN ISO 13736
	Closed Cup Method	None
	Corrosiveness to Copper from	ASTM D130
	Petroleum Products by Copper	None
	Strip Test	None
	Determination of Total Sulfur in	ASTM D 5453
	Light Hydrocarbon, Spark Ignition	None
	Engine Fuel, Diesel Engine Fuel	
	and Engine oil by Ultraviolet	
	Fluorescence	
	Sulfur in Petroleum and	ASTM D4294
	Petroleum Products by Energy	None
	Dispersive X-ray Flourescence	
	Spectrometry	
	Freezing point of Aviation Fuels	ASTM D2386
	Density, Relative Density and API	ASTM D4052
	Gravity of Liquids by Digital	
	Density Meter	
	Distillation of Petroleum Product	ASTM D86
	and Liquid Fuels at Atmospheric	None
	Pressure	
	(Thiol Mercaptan) Sulfur in	ASTM D3227
	Gasoline, Kerosine, Aviation	
	Turbine and Distillate Fuels	
	(Potentiometric Method)	None
	Gum Content in Fuels by Jet Evaporation	ASTM D381
	Aviation Fuel Flash Point Abel	IP 170/ EN ISO 13736
	Closed Cup Method	None
	Corrosiveness to Copper from	ASTM D130
	Petroleum Products by Copper	1.0.1
	Strip Test	
Biodiesel	Water by KF	ASTM D 6304-16e1
Diodiesei	Water Content	ASTM D 6304-1061
	Flash Point	ASTM D0304-20 ASTM D93-20
	Density	ASTM D4052-18
	Denoity	AO 1 IVI D4032-10

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Density	ASTM 1298-12b (Reapproved
		2017)
	Density correction	EN 14214:2008 (E) Annex C
	Water content	ASTM D 6304-20 (Procedure C
		excluded)
	Filter Blocking Tendency	ASTM D2068
	Filter Blocking Tendency	ASTM D2068
Biodiesel Blend	Density @15 °C	ASTM D 1298 -" 12b (Reapproved 2017)
Crude Oil	Density @15 °C Relative Density	ASTM D 1298 -" 12b (Reapproved
Orado On	(Specific Gravity) @60/60°F	2017)
	Water	ASTM D 4928-12 (Reapproved
	vator	2018)
	Density and Relative Density	ASTM D 5002-19
	Water content	ASTM D 3002-19 ASTM D 4928-12
	Salts in Crude Oil (Electrometric	ASTM D3230
	Method)	None
	Pour Point of Petroleum	ASTM D97
	Products	None
	Acid Number of Petroleum	ASTM D664
	Products by Potentiometric	None
	Titration	None
	Density, Relative Density or API	ASTM D1298
	Gravity of Crude Petroleum and	7.6 TW 2 1266
	Liquid Petroleum Products by	None
	Hydrometer Method	None
	Salts in Crude Oil (Electrometric	ASTM D3230
	Method)	7.6 T.M. 26260
	Pour Point of Petroleum Products	ASTM D97
	Acid Number of Petroleum	ASTM D664
	Products by Potentiometric	/ to 1 iii 2 co 1
	Titration	
	Density, Relative Density or API	ASTM D1298
	Gravity of Crude Petroleum and	7.6.1
	Liquid Petroleum Products by	
	Hydrometer Method	
Fresh Water / Produced Water / River Water / Drinking Water	Turbidity Chloride	APHA 2130 B (2017) APHA B (2017)
Gas	Pressure (0-800 psi)	In-house Method 0564
Cas	Pressure (0 - 800 psi)	In-house Method 0564
Glycol	Specific Gravity	ASTM D4052-18
,	pH	ASTM D1287-91 (2002)
	Iron	In-House Method 0557 based on ASTM D5863-11 & ASTM
	Total Suspended Solids	D5184-12 In-House Method 0584 based on APHA 2540 D, 2017
	Density	ASTM D1122-97a by Hydrometer

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Density	ASTM D 4052-18 by Density Meter
Hydrocarbon Liquids	Refractive Index	ASTM D 1218-12 (Procedure A) (Reapproved 2016)
Jet Fuel	Flash Point	IP 170-14
	Appearance	ASTM D4176-21a (Proc.1)
	Saybolt Color of Petroleum Products (Saybolt Chromometer Method)	ASTM D156-15
	Particulate Contamination in Aviation Fuels by Laboratory Filtration	ASTM D5452-20
	Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence	ASTM D5453-19a
	Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure	ASTM D86-20b
	Determination of flash point - Abel closed-cup method	IP 170-14
	Density, Relative Density, and API Gravity of Liquids by Digital Density Meter	ASTM D4052-18a
	Freezing Point of Aviation Fuels	ASTM D2386-19
	Corrosiveness to Copper from Petroleum Products by Copper Strip Test	ASTM D130-19 (2017)
	Thermal Oxidation Stability of Aviation Turbine Fuels	ASTM D3241-20c
	Determination of the Existent Gum Content of Aviation Turbine Fuel	IP 540-08 (2014)
	Gum Content in Fuels by Jet Evaporation	ASTM D381-19
	Determining Water Separation Characteristics of Aviation Turbine Fuels by Portable Separometer	ASTM D3948-20
	Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method	ASTM D1298-12 (2017)
	Sulfur in Petroleum and Petroleum Products by Energy Dispersive X- ray Fluorescence Spectrometry	ASTM D4294-21
	Flashpoint by Pensky Martens Closed Cup Tester	ASTM D93-20 (Proc.A)
Kerosine And Aviation Fuel	Smoke Point	ASTM D 1322-18

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Liquid Petroleum Products	Hydrocarbon Types	ASTM D 1319-18 (Fluorescent
	, , , , , , , , , , , , , , , , , , , ,	Indicator Absorption, FIA)
	7~35 mm2/s	Test instruction reference to BS EN
Natural Gas	Gas Composition by Gas	GPA 2261-00
	Chromatography	
	Composition analysis C1-C11,	GPA 2286-14 Gas
	C12+	Chromatography
	Mercury	ASTM D6350-14 Cold Vapor
		Atomic Fluorescence
		Spectroscopy (Analysis)
	Hydrocarbons (C1 -" C12+), CO2,	None
Petroleum Products	Water Content	ASTM D6304-16e1 (Procedure A)
		(Coulometric Karl Fischer)
	Density	ASTM D4052-18
	Composition analysis C8+	In-House Method 0522 based on
		ASTM D5442 17 Gas
		Chromatography
	None	None
	None	None
	Standard Test Method for	None
River Water & Industrial Effluent	Chemical Oxygen Demand COD	APHA 5220 C, 2005/2017
River Water, Industrial Effluent &	Ammoniacal Nitrogen Biochemical	APHA 4500 NH3 B & C,
Marine Water	Oxygen Demand BOD	2005/2017 APHA 5210 B & 4500
		OG, 2005/ 2017
Schedule Waste (spent Lubricating Oil)	Flash Point	ASTM D93-19 (Procedure B)
Transparent And Opaque Liquid	Kinematic Viscosity @ 40°C	ASTM D445-19a
Waste Water / Effluent Water	Oil and Grease	APHA 5520 B (2005)
Water	pH	ASTM D 1293-2005 (Method B)
		APHA 4500 H* B 2005/2017
	рН	ASTM D1293-2005 (Method B) APHA 4500 H* B 2005/2017
	None	None
	Turbidity	APHA 2130B
	On-site Sampling & Testing (pH	In-house Method SOP-0222-2001
	Temperature, Turbidity)	& 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 CaCO3,	APHA 3500-Ca B, 2017
	Magnesium (by Calculation Method)	APHA 3500-Mg B, 2017
	Nitrate	APHA E, 2017

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	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	In-house method, SGS-
	(2,4-D)	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
	рН	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
	None	None
	None	None
	Escherichia coli and coliform	ISO 9308-1: 2014 (E) /
	Decodemons	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 Free Chlorine	None APHA' 4500 -" CI G
	Free Chionne	AFIIA 4000 - OLG

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Material / Product Tested	Type Of Test / Properties	Standard Test Methods /
	Measured / Range Of	Equipment / Techniques
	Measurement	
	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
	J 11 7 11 3	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
	Escherichia coli and Coliform	Escherichia coli and Coliform
		Bacteria. Part 1: Membrane
		filtration
	Escherichia coli and Coliform	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