

## TEST REPORT

## Megha Power Solutions

{ Testing &amp; Diagnostic Solutions }

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**Issued to :-** RELIANCE INDUSTRIES LIMITED (SEZ PCG) Test Certificate No./ ULR No.:- TC538821000000615F
**VILLAGE :** MEGHPAR / PADANA, TALUKA : LALPUR**Test Report Date :-** 24/02/2021**DIST:** JAMNAGAR-361280, GUJARAT, INDIA**Testing Date :-** 22/02/2021
**Sample Particular:** Bottle No: R-252/415 Type Of Oil : Mineral oil Reason of Sampling : Routine Sampling Method( IS 6855)

**Collected on:-** 18/02/2021 **By :-** MPS **Position:-** BOTTOM **RIL LIMS** **Atmospheric** Temp. -25.7 °C & Hum. -22.7%

Trans. Detail	Plant	Sub-Station	Code	Sr.No.	Rating	Ratio(KV)	WTI (°C)	OTI (°C)	Make	Mfr Year
—	MRS-4	-	ET-HYH 945-002B	B-30857	174 MVA	220/34.5 KV	44	40	ALSTOM	2015

Oil Test (IS 1866-2017)				DGA (Dissolved Gas Analysis) (IS 10593, 9434)			Furans * (ASTM :D 5837)	
Test Parameter	Test Method	Limits	Test Value	Tested Gases	Limits	Test Value	Tested Contents	Test Value (ppb)
Appearance	IS 335	Clear	Light yellowish colour	TGC Total Gas Content %	6.5		5-Hydroxymethyl-2-feruldehyde	ND
Density at 29.5 °C	IS 1448(P-16)	Max 0.89 g/cm <sup>3</sup>	0.859	H2 Hydrogen (ppm)	50-150	12	2-Furfural (furfuryl alcohol)	ND
Breakdown Voltage	IS 6792	Min 40 KV	68	O2 Oxygen (ppm)	-	10910	2-furaldehyde	31
Water Content	IS 13567	Max 30 ppm	11	N2 Nitrogen (ppm)	-	50895	2-Acetylfuran	ND
Neutralisation Value	IS 1448(P-2)	Max 0.20 mgKOH/g	0.034	CO Carbomonoxyde(ppm)	400-600	204	5-Methyl -2-furaldehyde	ND
Resistivity ( x 10 <sup>12</sup> )	@27°C	Min 04 GΩm	1385	CO2 Carbondioxide (ppm)	3800-14000	2114	Total Furans	31
	@90°C	Min 0.2 GΩm	127	CH4 Methane (ppm)	30-110	1	Estimated DP Value	862.47
Dielectric Disipation Factor	@27°C		0.000186	C2H6 Ethane (ppm)	20-90	0	Acceptabilities	
	@90°C	Max 0.50	0.001018	C2H4 Ethylene (ppm)	60-280	0		
Interfacial Tension	IS 6104	Min 22 mN/m	37.4	C2H2 Acetyline (ppm)	02-020	0	0 to 100.....Acceptable 101 to 500.....Questionable 501 to 1500.....Detariorated 1501 to 2500.....Low reliability > 2500.....Replace/Rewind	
Flash Point	IS 1448(P-21)	Min 125 °C	160	TDCG Total Dissolve Combustible Gas (ppm)	217		DP ≥ 1000.....Paper practically unaged DP = 999 ... 601 ...Paper slightly aged DP = 600 ... 401 ...Paper medium aged DP = 400 ... 251 ...Paper strongly aged DP = 250 ... 151 ...Paper very strongly aged DP ≤ 150 .....Paper extremely aged	
Sediment & Sludge	IS 1866 (AP-A)	Min 0.02 % by mass	NIL	TDCG/TGC ( % )	0.0514			
Remark: Oil is Fit for Use				Remark:	Generation of gas is acceptable.		Remark:	Acceptable


**Note :** Sample received in good condition

Humidity :- 38 %

Temperature :- 26.6 °C

**Observation :** Transformer Condition is Normal. No action is Needed

- Note: 1. Test Result indicates only Tested Sample and Parameter.  
 2. Liability of Laboratory is limited to tested parameter.  
 3. Certificate cannot be used as Evidence in Court of Law without Prior consent of the laboratory  
 4 - \* Test Value is above scope

  
 Authorised Signatory  
 For Megha Power solutions
