

## ANALISIS FURAN PADA TRANSFORMATOR DENGAN METODE KROMATOGRAFI CAIRAN KINERJA TINGGI

Klien/Proyek	: Graha Cempaka	Tegangan	: 20000 Va
Pabrikan/Tahun	: Trafindo/1994	Kapasitas Minyak	: 1100 L
Nomor Seri	: 123456789	Catatan	: _____
Rated Power	: 2000 kva		
<b>Parameter</b>	<b>Hasil Uji</b> <b>(Nilai Konsetrasi Dalam Parts Billion [ppb])</b>		
	<b>1</b>	<b>-</b>	<b>BATAS TRANSFORMER 2FAL STANDARD FIST-3-31:2003</b>
	Tanggal Sampling 6/6/2023	-	
	Tanggal Terima 6/6/2023	-	
	Tanggal Pengujian 6/6/2023	-	
<b>5HMF</b> <b>(5-hydromethyl-2-furakhydel)</b>	<b>0</b>	<b>0</b>	<b>0-292 pbd Normal Aging Rate</b>  <b>0-292 pbd Normal Aging Rate</b>  <b>0-292 pbd Normal Aging Rate</b>  <b>0-292 pbd Normal Aging Rate</b>  <b>0-292 pbd Normal Aging Rate</b>
<b>5HMF</b> <b>(5-hydromethyl-2-furakhydel)</b>	<b>1</b>	<b>1</b>	
<b>5HMF</b> <b>(5-hydromethyl-2-furakhydel)</b>	<b>1</b>	<b>1</b>	
<b>5HMF</b> <b>(5-hydromethyl-2-furakhydel)</b>	<b>1</b>	<b>1</b>	
<b>5HMF</b> <b>(5-hydromethyl-2-furakhydel)</b>	<b>1</b>	<b>1</b>	
<b>Total 2FAL</b>	<b>0/5* = 0.0</b>	<b>-</b>	<b>5* Faktor Koreksi</b>
<b>Total Furan</b>	<b>1</b>	<b>-</b>	<b>-</b>
<b>Estimate DP</b>	<b>1</b>	<b>-</b>	<b>-</b>

- Berdasarkan hasil uji sample tersebut maka trafo mengalami Normal Aging Rate
- Berdasarkan hasil uji sample tersebut maka trafo mengalami Normal Aging Rate
- Berdasarkan hasil uji sample tersebut maka trafo mengalami Normal Aging Rate
- Berdasarkan hasil uji sample tersebut maka trafo mengalami Normal Aging Rate

Tangerang, 16 juni 2023

Klien/Proyek	: Graha Cempaka	Tegangan	: 20000 Va
Pabrikan/Tahun	: Trafindo/1994	Kapasitas Minyak	: 1100 L
Nomor Seri	: 123456789	Catatan	: _____
Rated Power	: 2000 kva		
Diuji Oleh :		Diperiksa Oleh :	
Resita Nur Ambya		Ahmad Kharis Ahmad Sujarwo	
Analisis Laboratorium		KaBag In House      Manager In House Service	

## TEST RESULT OF OIL ANALYSIS

**Customer : Edo Laksana Widodo**

**Project : Hotel/Apartment**

**No. Documen :**

**Tgl/Rev. Form :**

**Tgl/Rev. Isi Dok :**

**Halaman :**

### DATA TEKNIS TRANSFORMATOR

**Merk** : Brush **Tegangan** : 138000 / 3450 V **Tahun** : 1999 **Catatan** :  
**Kapasistas** : 5000 Kva **Tag No.** : 50-EE-2112A **Vector** : Dyn-Group 1  
**No Seri** : 7171771 **Temp. Oil** : -5\* **Jumlah** : 2156  
**Oil** L

### HASIL PENGUJIAN OIL ANALYSIS

STANDAR QUALITY OF OIL ANALYSIS			1	2	3	BATASAN NILAI PENGUNJIAN			
			1	1	1				
			1	1	1				
			1	1	1				
			1	1	1				
			1	1	1				
			08/08/2023	-	-	Poor	Pair	Good	Condition
Color / Appereance	ASTM Color	ASTM D1500	5	-	-	>3.5	-	3.5	Poor
Breakdown Voltage (Dielectric Strength)	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Interfacial Tension	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Total Acid Number (TAN)	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Water Content	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Oil Quality Index (OQIN)	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Sediment & Sludge	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Density	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Corrosive Sulfur	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Flash Point	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST

### Kesimpulan :

**Berasarkan IEC 60422:2013, Sample Minyak Trafo berada pada kondisi Poor**

### Rekomendasi :

**Lakukan Purifikasi Oli atau pergantian Oli**

**Tangerang, 09 August 2023**

**Di uji Oleh,**

**Di Periksa Oleh,**

**Di Setujui Oleh,**

**Farhan Aditya**  
**(Analisis Laboratorium)**

**Ahmad Kharis**  
**(kaBag. In House Service)**

**Ahmad Sujarwo**  
**(Manager In House Service)**

