

Tampa Armature Works

Serial#: 2-39Y2285A
Location: CITY OF WAUCHULA
Equipment: OCB
Compartment: OCB
Breathing: FB
Bank: Phase: 1
Fluid: MIN USGal: 550
Model:

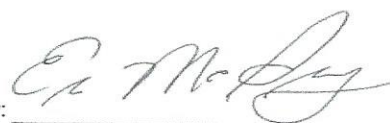
Mfr: WESTINGHOUSE
kV: 69
kVA:
Year Mfd: 1969
Syringe ID: 53005814
Bottle ID:
Sampled By: DOC

Control#: 7201591
Order#: 583350
Account: 614
Received: 12/05/2018
Reported: 12/18/2018

LAKELAND, FL 33810 US
ATTN: CHRISTINA TABARETTI
PO#: 40408513-1
Project ID: 40310985
Customer ID: CB2500 A PHASE

Lab Control Number:		7201591
Date Sampled:		11/28/2018
Order Number:		583350
Oil Temp:		30
Dissolved Gas Analysis (DGA) ASTM D-3612 ¹	Hydrogen (H2) (µL/L):	2
	Methane (CH4) (µL/L):	2
	Ethane (C2H6) (µL/L):	2
	Ethylene (C2H4) (µL/L):	1
	Acetylene (C2H2) (µL/L):	<1
	Carbon Monoxide (CO) (µL/L):	14
	Carbon Dioxide (CO2) (µL/L):	559
	Nitrogen (N2) (µL/L):	60253
	Oxygen (O2) (µL/L):	27646
	Total Dissolved Gas (TDG) (µL/L):	88479
	Total Dissolved Combustible Gas (TDCG) (µL/L):	21
Equivalent TCG (%):		0.0189
DGA Diagnostics	Ratio Analysis:	Heating to arcing gas ratios within normal limits..
Comment:		
General Oil Quality (GOQ)		
ASTM D-1533 ¹	Moisture in Oil (mg/kg):	31
ASTM D-971 ¹	Interfacial Tension (mN/m):	23.47
ASTM D-974 ¹	Acid Number (mg KOH/g):	0.066
ASTM D-1500 ¹	Color Number (ASTM):	L2.0
ASTM D-1524 ¹	Visual Exam. (Relative):	PASS
		CLR&BRIGHT
ASTM D-1524 ¹	Sediment Exam. (Relative):	TRACE
ASTM D-877 ¹	Dielectric Breakdown (kV):	42
ASTM D-924 ¹	Power Factor @ 25°C (Routine) (%):	0.049
ASTM D-4052 ¹	Density @15°C (g/mL):	0.8878
GOQ Diagnostics	Moisture in Oil:	Diagnostic not applicable.
PER IEEE C57.106-2006	Interfacial Tension:	Below limit for in-service oil (25 mN/m min).
(most recent sample)	Acid Number:	Diagnostic not applicable.
	Color Number and Visual:	Color acceptable for in-service oil (2.0 max). Visual acceptable for in-service oil (CARBON).
	Dielectric Breakdown ASTM D-877:	Acceptable for in-service oil (25 kV min).
	Power Factor @ 25°C (Routine):	Acceptable for in-service oil (1% max).
Comment: MOISTURE RESULT WAS VERIFIED BY REANALYSIS.		

End of Test Report

Authorized By: 
ERIC MCANANY
CHEMIST

Notations: 1. Analysis is ISO/IEC 17025:2005 accredited, L-A-B Accredited Certificate Number L2303.02 2. This test is conducted by a subcontracted laboratory. 3. Subcontracted laboratory has received ISO Standard 17025 accreditation for this test. 5. This test is conducted by Weidmann Laboratory other than Primary Lab. 6. Weidmann Laboratory has received ISO Standard 17025 accreditation for this test. 7. Imported Sample: WEIDMANN Electrical Technology accepts no responsibility for these results; accreditation status does not apply to these results. 8. Imported Equipment 10. mg/kg, µg/g, µg/mL, µL/L = ppm, µg/L = ppb, mN/m = dynes/cm, mm²/s = cSt

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Tampa Armature Works

Serial#: 2-39Y2285B

Mfr: WESTINGHOUSE

Control#: 7201592

Location: CITY OF WAUCHULA

kV: 69

Order#: 583350

Equipment: OCB

kVA:

Account: 614

LAKELAND, FL 33810 US

Compartment: OCB

Year Mfd: 1969

Received: 12/05/2018

ATTN: CHRISTINA TABARETTI

Breathing: FB

Syringe ID: 53002451

Reported: 12/18/2018

PO#: 40408513-1

Bank: Phase: 1

Bottle ID:

Project ID: 40310985

Fluid: MIN USGal: 550

Sampled By: DOC

Customer ID: CB2500 B PHASE

Model:

Lab Control Number:		7201592
Date Sampled:		11/28/2018
Order Number:		583350
Oil Temp:		30
Dissolved Gas Analysis (DGA) ASTM D-3612 ¹	Hydrogen (H2) (µL/L):	3
	Methane (CH4) (µL/L):	1
	Ethane (C2H6) (µL/L):	<1
	Ethylene (C2H4) (µL/L):	<1
	Acetylene (C2H2) (µL/L):	<1
	Carbon Monoxide (CO) (µL/L):	16
	Carbon Dioxide (CO2) (µL/L):	570
	Nitrogen (N2) (µL/L):	66188
	Oxygen (O2) (µL/L):	30078
	Total Dissolved Gas (TDG) (µL/L):	96856
Total Dissolved Combustible Gas (TDCG) (µL/L):		20
Equivalent TCG (%):		0.0207
DGA Diagnostics	Ratio Analysis:	Heating to arcing gas ratios within normal limits..
Comment:		
General Oil Quality (GOQ)		
ASTM D-1533 ¹	Moisture in Oil (mg/kg):	29
ASTM D-971 ¹	Interfacial Tension (mN/m):	23.77
ASTM D-974 ¹	Acid Number (mg KOH/g):	0.068
ASTM D-1500 ¹	Color Number (ASTM):	L2.0
ASTM D-1524 ¹	Visual Exam. (Relative):	PASS
ASTM D-1524 ¹	Sediment Exam. (Relative):	CLR&BRIGHT
ASTM D-877 ¹	Dielectric Breakdown (kV):	41
ASTM D-924 ¹	Power Factor @ 25°C (Routine) (%):	0.044
ASTM D-4052 ¹	Density @15°C (g/mL):	0.8879
GOQ Diagnostics	Moisture in Oil:	Diagnostic not applicable.
PER IEEE C57.106-2006	Interfacial Tension:	Below limit for in-service oil (25 mN/m min).
(most recent sample)	Acid Number:	Diagnostic not applicable.
	Color Number and Visual:	Color acceptable for in-service oil (2.0 max). Visual acceptable for in-service oil (CARBON).
	Dielectric Breakdown ASTM D-877:	Acceptable for in-service oil (25 kV min).
	Power Factor @ 25°C (Routine):	Acceptable for in-service oil (1% max).
Comment:		

End of Test Report

Authorized By:



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Tampa Armature Works

Serial#: 2-39Y2285C

Mfr: WESTINGHOUSE

Control#: 7201593

Location: CITY OF WAUCHULA

kV: 69

Order#: 583350

Equipment: OCB

kVA:

Account: 614

LAKELAND, FL 33810 US

Compartment: OCB

Year Mfd: 1969

Received: 12/05/2018

ATTN: CHRISTINA TABARETTI

Breathing: FB

Syringe ID: 53005623

Reported: 12/18/2018

PO#: 40408513-1

Bank: Phase: 1

Bottle ID:

Project ID: 40310985

Fluid: MIN USGal: 550

Sampled By: DOC

Customer ID: CB2500 C PHASE

Model:

Lab Control Number:		7201593
Date Sampled:		11/28/2018
Order Number:		583350
Oil Temp:		30
Dissolved Gas Analysis (DGA) ASTM D-3612 ¹	Hydrogen (H2) (µL/L):	3
	Methane (CH4) (µL/L):	1
	Ethane (C2H6) (µL/L):	<1
	Ethylene (C2H4) (µL/L):	<1
	Acetylene (C2H2) (µL/L):	<1
	Carbon Monoxide (CO) (µL/L):	19
	Carbon Dioxide (CO2) (µL/L):	609
	Nitrogen (N2) (µL/L):	62314
	Oxygen (O2) (µL/L):	28209
	Total Dissolved Gas (TDG) (µL/L):	91155
Total Dissolved Combustible Gas (TDCG) (µL/L):		23
Equivalent TCG (%):		0.0248
DGA Diagnostics	Ratio Analysis:	Heating to arcing gas ratios within normal limits..
Comment:		
General Oil Quality (GOQ)		
ASTM D-1533 ¹	Moisture in Oil (mg/kg):	32
ASTM D-971 ¹	Interfacial Tension (mN/m):	23.41
ASTM D-974 ¹	Acid Number (mg KOH/g):	0.071
ASTM D-1500 ¹	Color Number (ASTM):	L2.0
ASTM D-1524 ¹	Visual Exam. (Relative):	PASS
ASTM D-1524 ¹	Sediment Exam. (Relative):	CLR&BRIGHT
ASTM D-877 ¹	Dielectric Breakdown (kV):	TRACE
ASTM D-924 ¹	Power Factor @ 25°C (Routine) (%):	43
ASTM D-4052 ¹	Density @15°C (g/mL):	0.042
GOQ Diagnostics	Moisture in Oil:	Diagnostic not applicable.
PER IEEE C57.106-2006	Interfacial Tension:	Below limit for in-service oil (25 mN/m min).
(most recent sample)	Acid Number:	Diagnostic not applicable.
	Color Number and Visual:	Color acceptable for in-service oil (2.0 max). Visual acceptable for in-service oil (CARBON).
	Dielectric Breakdown ASTM D-877:	Acceptable for in-service oil (25 kV min).
	Power Factor @ 25°C (Routine):	Acceptable for in-service oil (1% max).
Comment: MOISTURE RESULT WAS VERIFIED BY REANALYSIS.		

End of Test Report

Authorized By:



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