



TOGA® - TEST REPORT

Condition Code: 3
ACCOUNT/LOCATION NUMBERS
Demo Account

COMPANY NAME Demo Account		LOCATION Demo Account		
LOCATION ADDRESS (No., Street, City, State, Zip) Demo Account				
UNIT DESIGNATION Demo Account	SERIAL NUMBER Demo Account	EQUIPMENT TYPE Transformer	MANUFACTURER Federal Pacific	YEAR BUILT

SAMPLE REPORT ORDER DETAILS

SAMPLED BY Demo Account		PCB LEVEL (ppm) Unknown	OIL PRESERVATION METHOD Gas Blanketed - Sealed						
COOLING METHOD OA/FA	OIL VOLUME 5,420 GALS	VOLTAGE KV	PRI 115	SEC 14	TER	SIZE MVA	PRI 33	SEC	TER
CONDITION CODE 3	SCHEDULED NEXT SAMPLE DATE 03/15/12	SCHEDULED TESTS DGA							

REVIEWER COMMENTS (Condition Codes 1-No recommendations, 2- Monitoring unit, 3- Recommendation issued)

The DGA sample indicates the combustible gas levels are stable. We do not believe that there has been additional arcing events. We continue to recommend investigating the arcing event as soon as possible. We recommend electrical testing and a possible internal inspection. Electrical testing should include insulation resistance, winding resistance, power factor and a turn to turn ratio. A core ground check may be helpful. Possible gassing sources includes the DETC and a loose connection like a bushing. The next scheduled sample for 4/15/2012 is DGA

CLIENT COMMENTS

CURRENT & PREVIOUS SAMPLE REPORT RESULTS

Report Order ID	107212	107116	105960	55319	50844	8947
Sample Date	03/14/12	02/27/12	01/09/12	05/15/98	03/31/97	02/19/96
Condition Code	3	3	2	1	1	1
Sample Received Date	03/16/12	02/29/12	01/16/12			
Sample Processed Date	03/22/12	03/01/12	02/02/12			
Gas Pressure, psig:	+2.5	+1.5	+1.25	1.2	1.3	1.5
Max. Temp. by Indicator (°C)	45	45	36	59	30	33
Temp. at Time of Sample, (°C)	40	25	22	39	30	33
Ambient Temperature (°F)	62	40	33	70	40	50
Hours Of Operation	0	0	0			

DISSOLVED GAS ANALYSIS

Hydrogen, (H2), ppm	86	84	92	2	0	8
Oxygen, (O2), ppm	648	1824	2570	1847	3100	3517
Nitrogen, (N2), ppm	69462	68259	74778	72296	89843	54480
Methane, (CH4), ppm	75	64	70	15	53	18
Carbon Monoxide, (CO), ppm	252	221	247	137	59	20
Carbon Dioxide, (CO2), ppm	4778	4300	4255	1518	518	266
Ethylene, (C2H4), ppm	54	52	51	3	3	4
Ethane, (C2H6), ppm	16	10	14	7	39	12
Acetylene, (C2H2), ppm	46	34	45	0	0	2
Combustible gas, ppm	529	465	519	164	154	64
% of Gas in oil by volume	7.5	7.5	8.2	7.58	9.36	5.85
TCG est. in the gas space				0.15	0.06	0.11

SCREEN TESTS

Dielectric Breakdown, KV			39			57
Specific Gravity			0.88			0.874
Color			1.5			<1.5
Acidity, mg KOH/g			0.042			0.035
Interfacial Tension, dynes/cm			39.1			44.8
Power Factor @ 25 °C, %			0.078			0.03
Power Factor @ 100 °C, %						
Water, ppm			15			
PCB, ppm						