

OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL

Machine Id

DFGS 104354

Component Diesel Engine Fluid {not provided} (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

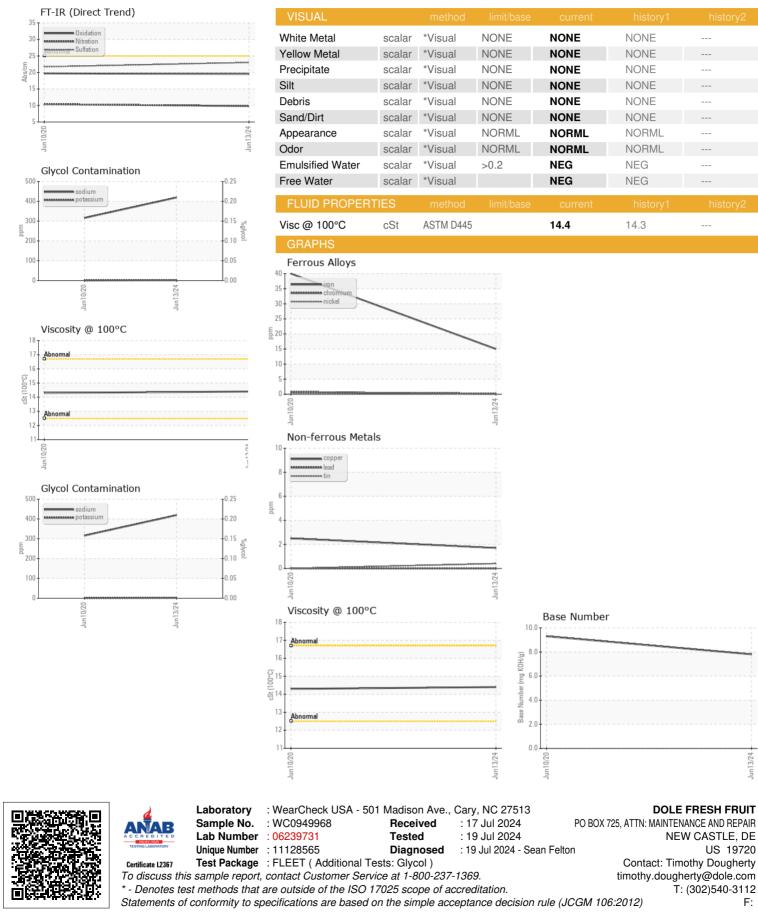
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0949968	WC0452241	
Sample Date		Client Info		13 Jun 2024	10 Jun 2020	
Machine Age	hrs	Client Info		14001	9366	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	Changed	
Sample Status				ATTENTION	ATTENTION	
CONTAMINATION	۷	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	15	40	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	<1	
Titanium	ppm	ASTM D5185m	~ 1	0	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	8	16	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	2	2	
Tin	ppm	ASTM D5185m	>15	- <1	0	
Antimony	ppm	ASTM D5185m	210		0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
	le le			-		
		method	limit/base	current	history1	history?
ADDITIVES Boron	nnm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	371	165	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	371 0	165 <1	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86	165 <1 82	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0	165 <1 82 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0 388	165 <1 82 <1 481	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0 388 1728	165 <1 82 <1 481 2008	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0 388 1728 1058	165 <1 82 <1 481 2008 1013	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0 388 1728	165 <1 82 <1 481 2008	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0 388 1728 1058 1315 3811	165 <1 82 <1 481 2008 1013 1259	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		371 0 86 0 388 1728 1058 1315 3811	165 <1 82 <1 481 2008 1013 1259 2800	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	371 0 86 0 388 1728 1058 1315 3811 current	165 <1 82 <1 481 2008 1013 1259 2800 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	371 0 86 0 388 1728 1058 1315 3811 current 5	165 <1 82 <1 481 2008 1013 1259 2800 history1 7	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >25	371 0 86 0 388 1728 1058 1315 3811 <u>current</u> 5 419	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 7 316	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25	371 0 86 0 388 1728 1058 1315 3811 <u>current</u> 5 419 2	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 7 316 0	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	371 0 86 0 388 1728 1058 1315 3811 current 5 419 2 NEG NEG	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 316 0 NEG NEG	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D2982	limit/base >25 >20 limit/base >3	371 0 86 0 388 1728 1058 1315 3811 current 5 419 2 NEG current 0.2	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 316 0 NEG history1 0.1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	371 0 86 0 388 1728 1058 1315 3811 current 5 419 2 NEG NEG	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 316 0 NEG NEG	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >3 >30	371 0 86 0 388 1728 1058 1315 3811 current 5 419 2 NEG 0.2 9.8 23.0	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 316 0 NEG history1 0.1 10.4 21.7	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >20 limit/base >3 >20 >30 limit/base	371 0 86 0 388 1728 1058 1315 3811 Current 5 419 2 NEG 0.2 9.8 23.0	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 316 0 NEG NEG history1 0.1 10.4 21.7 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >3 >30	371 0 86 0 388 1728 1058 1315 3811 current 5 419 2 NEG 0.2 9.8 23.0	165 <1 82 <1 481 2008 1013 1259 2800 history1 7 316 0 NEG history1 0.1 10.4 21.7	 history2 history2 history2 history2 history2

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Contact/Location: Timothy Dougherty - DOLWIL



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