

### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# FREIGHTLINER 1238

Component Diesel Engine Fluid MOBIL 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### 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	<b>1ATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0917300	WC0893784	
Sample Date		Client Info		22 May 2024	31 Jan 2024	
Machine Age	mls	Client Info		80935	72511	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	21	14	
Chromium	ppm	ASTM D5185m	>5	<1	<1	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>30	4	4	
Lead	ppm	ASTM D5185m	>30	0	0	
Copper	ppm	ASTM D5185m	>150	2	3	
Tin	ppm	ASTM D5185m	>5	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		1	5	
Barium	ppm	ASTM D5185m		0	0	
Molybdenum	ppm	ASTM D5185m		60	60	
Manganese	ppm	ASTM D5185m		0	<1	
Magnesium	ppm	ASTM D5185m		944	945	
Calcium	ppm	ASTM D5185m		1049	1070	
Phosphorus	ppm	ASTM D5185m		1089	1050	
Zinc	ppm	ASTM D5185m			1015	
				1268	1245	
Sulfur	ppm	ASTM D5185m		1268 2974	1245 2885	
Sulfur CONTAMINANTS			limit/base			
		ASTM D5185m	limit/base	2974	2885	
CONTAMINANTS	ppm	ASTM D5185m method		2974 current	2885 history1	 history2
CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method ASTM D5185m	>20	2974 current 3	2885 history1 3	 history2 
CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	>20 >118	2974 current 3 0	2885 history1 3 <1	 history2 
CONTAMINANTS Silicon Sodium Potassium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>20 >118 >20	2974 current 3 0 8	2885 history1 3 <1 6	 history2  
CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>20 >118 >20 limit/base	2974 current 3 0 8 current	2885 history1 3 <1 6 history1	 history2   history2
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	>20 >118 >20 limit/base >3	2974 current 3 0 8 current 0.5	2885 history1 3 <1 6 history1 0.6	 history2   history2 
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm % Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624	>20 >118 >20 limit/base >3 >20	2974 current 3 0 8 current 0.5 6.7	2885 history1 3 <1 6 history1 0.6 6.8	 history2   history2 
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm % Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824 *ASTM D7415	>20 >118 >20 limit/base >3 >20 >30	2974 current 3 0 8 current 0.5 6.7 18.9	2885 history1 3 <1 6 history1 0.6 6.8 19.1	 history2   history2  
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm % Abs/cm Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7415	>20 >118 >20 <b>limit/base</b> >3 >20 >30 <b>limit/base</b>	2974 current 3 0 8 current 0.5 6.7 18.9 current	2885 history1 3 <1 6 history1 0.6 6.8 19.1 history1	 history2  history2   history2 history2



31

2!

Abs/cm

10

10.

6.

18

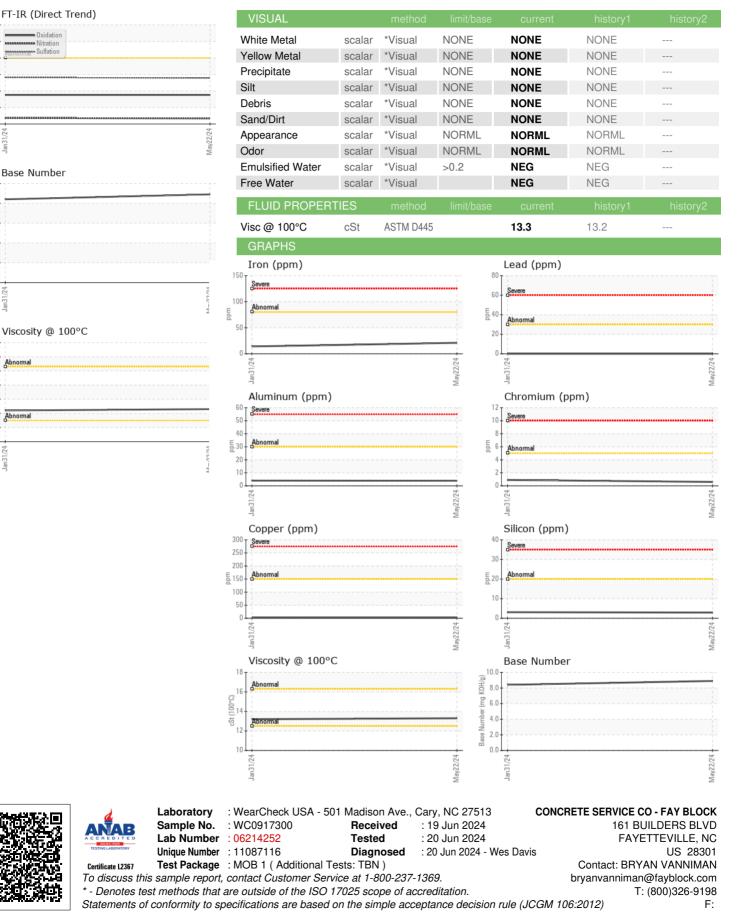
16 (0-01) tS3

(mg KOH/g)

-q 4.

ase 2.0

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