

OIL ANALYSIS REPORT

Sample Rating Trend

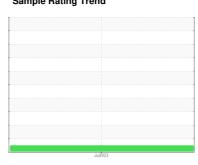
NORMAL



FREIGHTLINER 728103

Component **Diesel Engine**

MOBIL 15W40 (--- QTS)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a components first oil change.

Contamination

There is no indication of any contamination in the

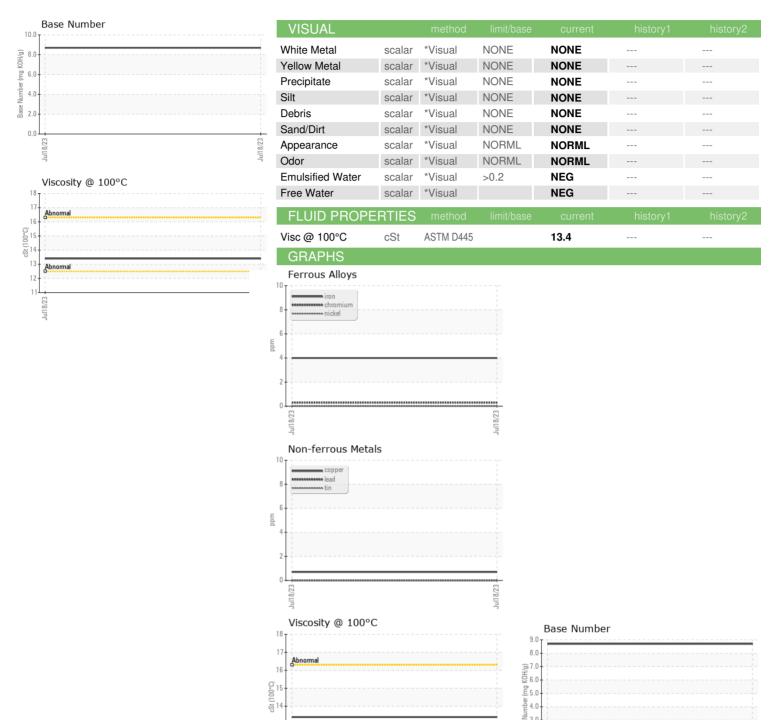
Fluid Condition

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

S)				Jul2023		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0066188		
Sample Date		Client Info		18 Jul 2023		
Machine Age	hrs	Client Info		500		
Oil Age	hrs	Client Info		500		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron		ASTM D5185m	>80	4		
Chromium	ppm	ASTM D5185m	>ou >5			
Nickel	ppm	ASTM D5185m	>2	<1 0		
Titanium	ppm	ASTM D5185m	<i>></i> C	3		
Silver	ppm	ASTM D5185m	>3	ა <1		
Aluminum	ppm	ASTM D5185m	>30	<1		
Lead		ASTM D5185m	>30	0		
	ppm		>150	<1		
Copper Tin	ppm	ASTM D5185m	>5	0		
Vanadium	ppm	ASTM D5185m	>0	<1		
Cadmium	ppm	ASTM D5185m		0		
Cadimum	ppiii	AO IIVI DO TOOTII		U		
ADDITIVEC		ام مطلع مما	line it /le e e e		hintom d	la: ata m .O
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	37	history1	history2
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	37 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46		
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46 <1 803		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46 <1 803 1263		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46 <1 803 1263 1012		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46 <1 803 1263 1012 1235		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	37 0 46 <1 803 1263 1012		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	37 0 46 <1 803 1263 1012 1235 3769 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	37 0 46 <1 803 1263 1012 1235 3769 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20 >118	37 0 46 <1 803 1263 1012 1235 3769 current 4	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	37 0 46 <1 803 1263 1012 1235 3769 current	 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20 >118 >20 limit/base	37 0 46 <1 803 1263 1012 1235 3769 current 4 2 3	 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20 >118 >20 limit/base >3	37 0 46 <1 803 1263 1012 1235 3769 current 4 2 3 current 0.2	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m	limit/base >20 >118 >20 limit/base >3	37 0 46 <1 803 1263 1012 1235 3769 current 4 2 3	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20 >118 >20 limit/base >3	37 0 46 <1 803 1263 1012 1235 3769 current 4 2 3 current 0.2	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D76145	limit/base >20 >118 >20 limit/base >3 >20	37 0 46 <1 803 1263 1012 1235 3769 current 4 2 3 current 0.2 5.6	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D76145	limit/base >20 >118 >20 limit/base >3 >20 >3 >20 >30	37 0 46 <1 803 1263 1012 1235 3769 current 4 2 3 current 0.2 5.6 17.7	history1 history1	history2 history2



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number Unique Number

: GFL0066188 : 05918345 : 10590259 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 08 Aug 2023 : 08 Aug 2023 Diagnosed : Wes Davis Diagnostician

2.0 1.0 0.0

> GFL Environmental - 904B - Menomonie 1706 MIDWAY RD MENOMONIE, WI US 54751

Contact: ANDY KANE

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: