

### **OIL ANALYSIS REPORT**

Sample Rating Trend

### NORMAL

Machine Id

# FREIGHTLINER 797

#### Component Diesel Engine

Fluid CHEVRON DELO 400 XLE 10W30 (40 LTR)

#### 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

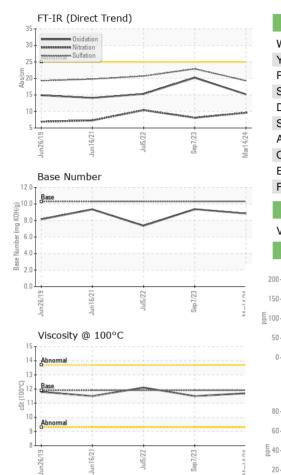
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0733173	WC0733108	WC0593808
Sample Date		Client Info		14 Mar 2024	07 Sep 2023	05 Jul 2022
Machine Age	hrs	Client Info		305004	10117	9458
Oil Age	hrs	Client Info		400	400	400
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION		mathad	limit/base	ourroat	biotoryd	biotom/0
	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>65	9	12	23
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	1
Aluminum	ppm	ASTM D5185m	>35	3	2	6
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>180	5	17	▲ 333
Tin	ppm	ASTM D5185m	>8	0	0	0
Antimony	ppm	ASTM D5185m	>35			
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		68	52	70
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		6	33	3
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		707	588	597
Calcium	ppm	ASTM D5185m	2900	1369	1809	1288
Phosphorus	ppm	ASTM D5185m	1100	703	014	688
Zinc				703	814	000
200	ppm	ASTM D5185m	1200	818	1005	791
Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	1200 4000			
Sulfur	ppm	ASTM D5185m		818	1005 3224	791
Sulfur CONTAMINANTS	ppm	ASTM D5185m method	4000	818 3270 current	1005 3224 history1	791 2860
Sulfur CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method ASTM D5185m	4000 limit/base	818 3270	1005 3224	791 2860 history2
Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m method	4000 limit/base >15	818 3270 current 6	1005 3224 history1 6	791 2860 history2 7
Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	4000 limit/base >15 >20	818 3270 current 6 2 2 2	1005 3224 history1 6 1 2	791 2860 history2 7 4 10
Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	4000 limit/base >15 >20 limit/base	818 3270 current 6 2 2 2 current	1005 3224 history1 6 1 2 history1	791 2860 history2 7 4 10 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	4000 limit/base >15 >20 limit/base >3	818 3270 current 6 2 2 2 current 0.5	1005 3224 history1 6 1 2 history1 0.5	791 2860 history2 7 4 10 history2 0.6
Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm % Abs/cm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624	4000 limit/base >15 >20 limit/base >3 >20	818 3270 current 6 2 2 2 current 0.5 9.6	1005 3224 history1 6 1 2 history1 0.5 8.1	791 2860 history2 7 4 10 history2 0.6 10.4
Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	4000 limit/base >15 >20 limit/base >3 >20	818 3270 current 6 2 2 2 current 0.5	1005 3224 history1 6 1 2 history1 0.5	791 2860 history2 7 4 10 history2 0.6
Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624	4000 limit/base >15 >20 limit/base >3 >20	818 3270 current 6 2 2 2 current 0.5 9.6	1005 3224 history1 6 1 2 history1 0.5 8.1	791 2860 history2 7 4 10 history2 0.6 10.4
Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	4000 imit/base >15 >20 imit/base >3 >20 >30	818 3270 current 6 2 2 2 current 0.5 9.6 19.3	1005 3224 history1 6 1 2 history1 0.5 8.1 22.9	791 2860 history2 7 4 10 history2 0.6 10.4 20.7
Sulfur 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 D7624 *ASTM D7415 method	4000 imit/base >15 >20 imit/base >3 >20 >30 imit/base	818 3270 current 6 2 2 2 current 0.5 9.6 19.3 current	1005 3224 history1 6 1 2 history1 0.5 8.1 22.9 history1	791 2860 history2 7 4 10 history2 0.6 10.4 20.7 history2
Sulfur 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 D7624 *ASTM D7415 method	4000 imit/base >15 >20 imit/base >3 >20 >30 imit/base	818 3270 current 6 2 2 2 current 0.5 9.6 19.3 current	1005 3224 history1 6 1 2 history1 0.5 8.1 22.9 history1	791 2860 history2 7 4 10 history2 0.6 10.4 20.7 history2

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## **OIL ANALYSIS REPORT**



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