

Machine Id

1568 1568 Component Diesel Engine Fluid DIESEL ENCINE OIL SAE 10W/20 (CA

DIESEL ENGINE OIL SAE 10W30 (--- GAL) RECOMMENDATION UOM Limit/Abn Current Test Method History1 History2 WC0939343 Sample Number Client Info ____ Resample at the next service interval to monitor. Sample Date Client Info 08 May 2024 Machine Age hrs **Client Info** 18 Oil Age hrs **Client Info** 18 Filter Age Client Info 18 hrs Oil Changed **Client Info** Not Changd Filter Changed Not Changd **Client Info** NORMAL Sample Status WEAR >100 17 Iron ppm ASTM D5185m Chromium ppm ASTM D5185m >20 <1 Metal levels are typical for a new component breaking in. Nickel ASTM D5185m >4 <1 ppm Titanium ASTM D5185m ppm <1 Silver ppm ASTM D5185m >3 0 >20 Aluminum ASTM D5185m 7 ppm Lead ASTM D5185m >40 <1 ppm >330 19 Copper ppm ASTM D5185m Tin ASTM D5185m >15 <1 ppm Vanadium ASTM D5185m <1 ppm White Metal *Visual NONE NONE scalar Yellow Metal *Visual NONE NONE scalar - - -- - - -CONTAMINATION Silicon ASTM D5185m >25 28 ppm Potassium ppm ASTM D5185m >20 12 There is no indication of any contamination in the oil. The amount and Fuel WC Method >5 <1.0 size of particulates present in the system are acceptable. Water WC Method >0.2 NEG Glycol WC Method NEG Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 22.1 Particles >4µm ASTM D7647 >20000 5794 Particles >6µm ASTM D7647 >5000 3156 Particles >14µm **ASTM D7647** >640 537 Particles >21um ASTM D7647 >160 181 Particles >38µm ASTM D7647 >40 28 Particles >71µm ASTM D7647 >10 3 **Oil Cleanliness** ISO 4406 (c) >21/19/16 20/19/16 Silt scalar *Visual NONE NONE Debris *Visual NONE NONE scalar Sand/Dirt scalar *Visual NONE NONE *Visual NORML NORML Appearance scalar Odor *Visual NORML NORML scalar **Emulsified Water** scalar *Visual >0.2 NEG . . . - - - -FLUID CONDITION Sodium ASTM D5185m 3 ppm 370 Boron ASTM D5185m 250 ppm The BN result indicates that there is suitable alkalinity remaining in the Barium ASTM D5185m 7 ppm 10 Molybdenum oil. The condition of the oil is acceptable for the time in service. ASTM D5185m 100 117 ppm Manganese ASTM D5185m ppm 4 Magnesium ASTM D5185m 450 650 ppm

Calcium

Zinc

Sulfur

Oxidation

Base Number (BN)

Visc @ 100°C

Phosphorus

3000

1350

4250

>25

10.9

ASTM D5185m

ASTM D5185m

ASTM D5185m

*ASTM D7414

ASTM D445

mg KOH/g ASTM D2896 8.5

ASTM D5185m 1150

ppm

ppm

ppm

ppm

cSt

Abs/.1mm

1449

732

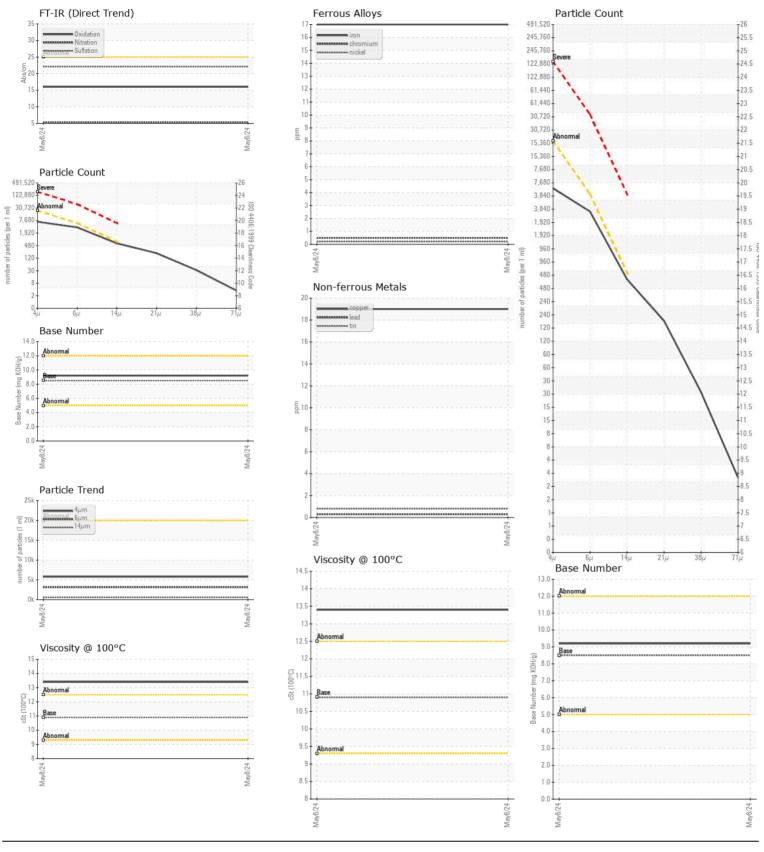
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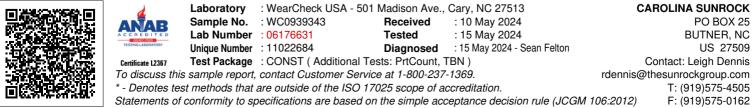
2622

16.0

9.2

13.4





Contact/Location: Leigh Dennis - CARBUTNC Page 2 of 2