

## Machine Id **Diesel Engine**

## CATERPILLAR 336FL 336FL-701 (S/N RKB01776) MOBIL DELVAC SUPER 1400 15W40 (--- GAL)

RECOMMENDATION Test UOM Method Limit/Abn Current History1 History2 Client Info TLY0002275 TLY0001992 TLY0001519 Sample Number Resample at the next service interval to monitor. Sample Date **Client Info** 16 Apr 2024 07 Oct 2023 09 May 2023 Machine Age hrs Client Info 10235 9745 9238 Oil Age hrs Client Info 9745 507 569 Filter Age hrs **Client Info** 9745 0 569 Oil Changed **Client Info** Changed Changed Changed Filter Changed Changed Client Info Changed Changed NORMAL NORMAL Sample Status NORMAL WEAR Iron ppm ASTM D5185m >100 40 50 29 >20 Chromium ASTM D5185m <1 ppm <1 1 All component wear rates are normal. Nickel ASTM D5185m >2 <1 0 <1 ppm Titanium ppm ASTM D5185m >2 <1 <1 <1 Silver ASTM D5185m >2 0 0 د1 ppm 4 Aluminum ASTM D5185m >25 4 4 ppm 5 Lead ASTM D5185m >40 2 1 ppm 88 268 Copper >330 132 ASTM D5185m ppm Tin ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m <1 <1 <1 White Metal NONE NONE NONE scalar \*Visual NONE NONE Yellow Metal scalar \*Visual NONE NONE NONE CONTAMINATION Silicon ASTM D5185m >25 8 10 12 ppm 2 3 Potassium ppm ASTM D5185m >20 1 There is no indication of any contamination in the oil. Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Glycol WC Method NFG NEG NFG Soot % % \*ASTM D7844 >3 0.6 0.8 0.5 Nitration Abs/cm \*ASTM D7624 >20 10.5 10.8 8.5 Sulfation Abs/.1mm \*ASTM D7415 >30 23.5 22.2 21.4 Silt scalar \*Visual NONE NONE NONE NONE Debris scalar \*Visual NONE NONE NONE NONE \*Visual NONE NONE Sand/Dirt NONE NONE scalar Appearance \*Visual NORML NORML NORML NORML scalar Odor scalar \*Visual NORML NORML NORML NORML Emulsified Water scalar NEG NEG \*Visual >0.2 NEG FLUID CONDITION Sodium ASTM D5185m 3 3 3 ppm 25 12 19 Boron ASTM D5185m ppm The BN result indicates that there is suitable alkalinity remaining in the 0 0 2 Barium ppm ASTM D5185m oil. The condition of the oil is suitable for further service. Molybdenum 49 58 59 ppm ASTM D5185m Manganese <1 ppm ASTM D5185m 1ء <1 538 678 Magnesium ppm ASTM D5185m 724 Calcium 1666 1653 1574 ppm ASTM D5185m Phosphorus 796 836 930 ppm ASTM D5185m Zinc ppm ASTM D5185m 975 1089 1144

Sulfur

Oxidation

Base Number (BN)

Visc @ 100°C

ppm

cSt

Abs/.1mm

mg KOH/g

ASTM D5185m

\*ASTM D7414

ASTM D2896

ASTM D445

>25

11.5

15.0

2428

21.1

7.1

12.9

3187

19.0

8.7

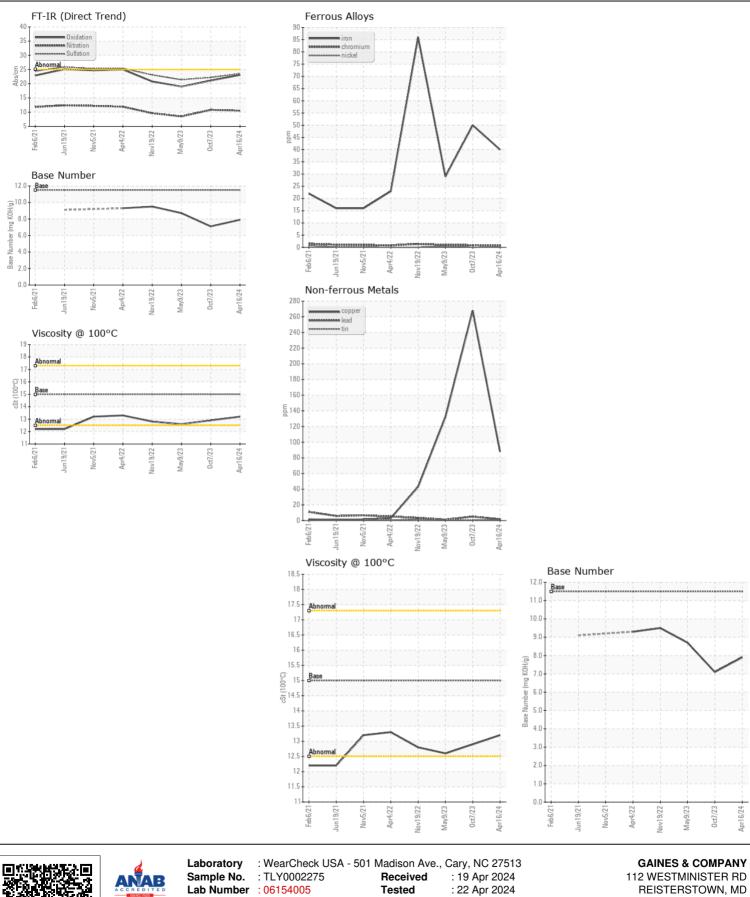
12.6

2533

23.1

7.9

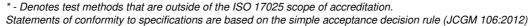
13.2



REISTERSTOWN, MD US 21136

: 22 Apr 2024 - Wes Davis

Contact: LANCE TANCRAITOR ltancraitor@gainesandco.com T: (410)833-9833 F:



Test Package : CONST (Additional Tests: TBN)

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

Diagnosed

Certificate L2367

Unique Number : 10989428

Submitted By: BRANDY BADING Page 2 of 2