

WEAR	
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

## [PMOAS3340711] 33MDGMJG0006 **Diesel Engine** DIESEL ENGINE OIL SAE 15W40 (--- GAL) RECOMMENDATION Test UOM Method Limit/Abn Current History1 History2 Client Info Sample Number DC0035381 DC0020422 ----Oil and filter change at the time of sampling has been noted. Resample Sample Date **Client Info** 01 Apr 2024 13 Apr 2022 at the next service interval to monitor. Machine Age hrs Client Info 106 34 Oil Age hrs Client Info ٥ 0 0 Filter Age hrs **Client Info** 0 Oil Changed **Client Info** Changed Changed Filter Changed Changed ----Client Info Changed ATTENTION ABNORMAL Sample Status WEAR Iron ppm ASTM D5185m >100 17 54 Chromium ASTM D5185m >20 n ppm <1 All component wear rates are normal. Nickel ASTM D5185m >4 0 0 ppm Titanium ASTM D5185m 0 1 ppm Silver ASTM D5185m >3 0 <1 ppm 3 Aluminum ASTM D5185m >20 1 ppm Lead ASTM D5185m >40 4 13 ppm 2 Copper ASTM D5185m >330 18 ppm 2 Tin ppm ASTM D5185m >15 0 0 Vanadium mag ASTM D5185m <1 White Metal NONE NONE scalar \*Visual NONE NONE Yellow Metal scalar \*Visual NONE NONE CONTAMINATION Silicon ASTM D5185m >25 36 **2**07 ppm ASTM D5185m >20 Potassium ppm 5 17 Fuel content negligible. There is no indication of any contamination in Fuel % ASTM D3524 >5 0.0 0.7 the oil. Water WC Method >0.2 NEG NEG Glycol WC Method NFG NEG Soot % % \*ASTM D7844 >3 0 0.1 Nitration Abs/cm \*ASTM D7624 >20 5.9 7.3 Sulfation Abs/.1mm \*ASTM D7415 >30 16.3 26.3 Silt scalar \*Visual NONE NONE NONE Debris scalar \*Visual NONE NONE NONE Sand/Dirt \*Visual NONE NONE NONE scalar Appearance scalar \*Visual NORML NORML NORML NORML Odor scalar \*Visual NORML NORML Emulsified Water scalar NEG \*Visual >0.2 NFG FLUID CONDITION Sodium ASTM D5185m 3 12 ppm >158 Boron 106 68 ASTM D5185m 250 ppm The oil viscosity is lower than normal. The BN result indicates that 5 Barium ppm ASTM D5185m 10 <1 there is suitable alkalinity remaining in the oil. Confirm oil type. Molybdenum ASTM D5185m 100 45 16 ppm Manganese ASTM D5185m 4 ppm ۲2

Magnesium

Phosphorus

Calcium

Zinc

Sulfur

Oxidation

Base Number (BN)

Visc @ 100°C

ppm

ppm

ppm

ppm

ppm

cSt

Abs/.1mm

mg KOH/g

ASTM D5185m 450

ASTM D5185m 1150

ASTM D5185m 4250

ASTM D2896 8.5

3000

1350

>25

14.4

ASTM D5185m

ASTM D5185m

\*ASTM D7414

ASTM D445

707

1263

1272

1334

9170

18.7

8.2

10.9

708

891

681

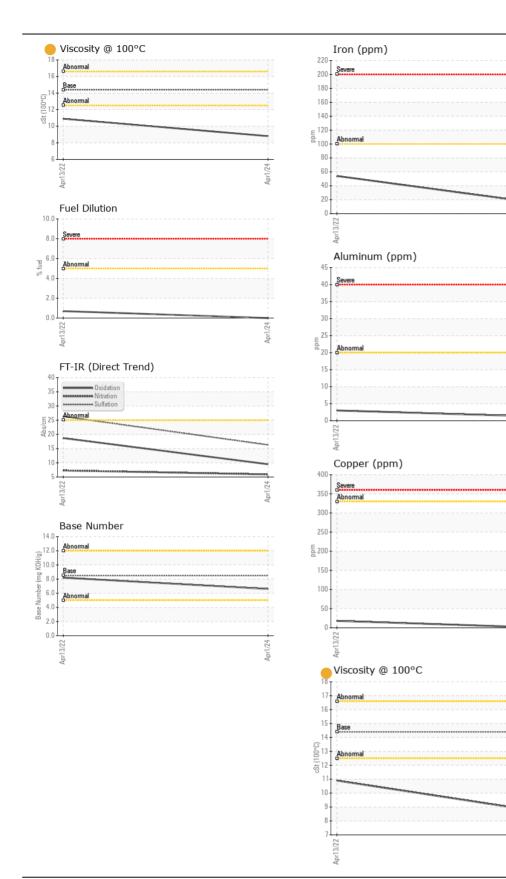
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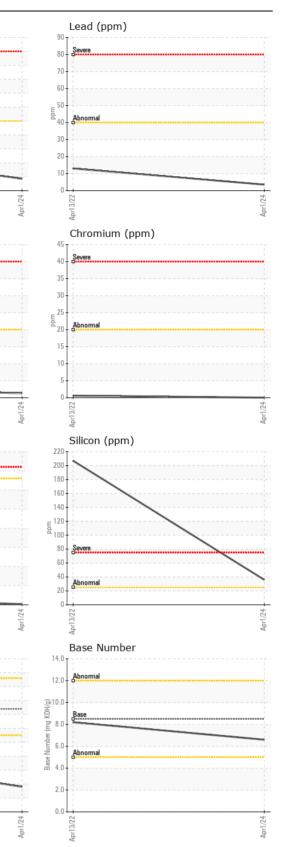
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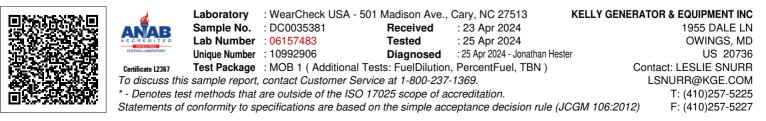
9.5

6.6

8.8







Contact/Location: LESLIE SNURR - KELOWI Page 2 of 2