



OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
04422
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | DC0035958 | DC0028004 | --- |
| Sample Date | | Client Info | | 15 May 2024 | 22 Feb 2023 | --- |
| Machine Age | mls | Client Info | | 42437 | 26287 | --- |
| Oil Age | mls | Client Info | | 0 | 5000 | --- |
| Filter Age | mls | Client Info | | 0 | 5000 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 18 | 32 | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | --- |
| Nickel | ppm | ASTM D5185m | >4 | <1 | <1 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 4 | 5 | --- |
| Lead | ppm | ASTM D5185m | >40 | <1 | 0 | --- |
| Copper | ppm | ASTM D5185m | >330 | 14 | 16 | --- |
| Tin | ppm | ASTM D5185m | >15 | 1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

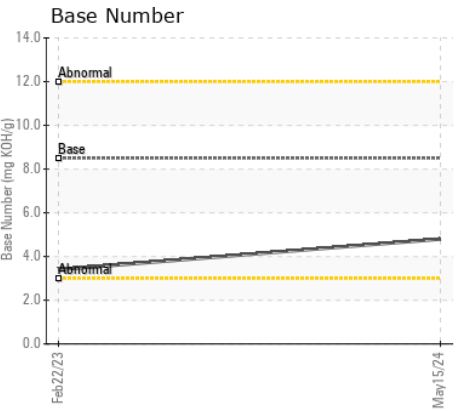
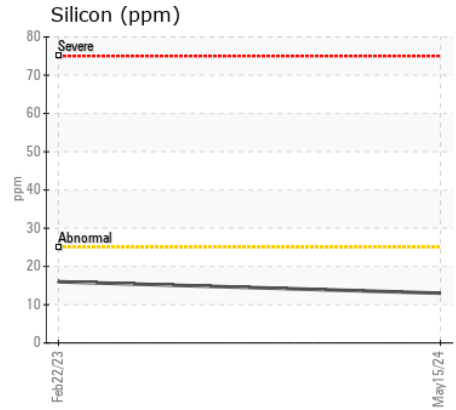
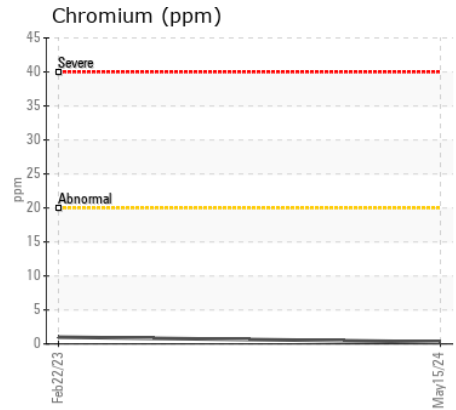
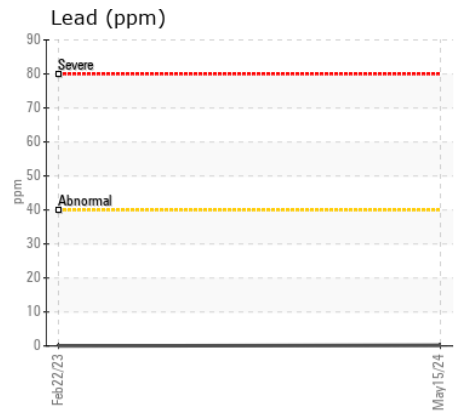
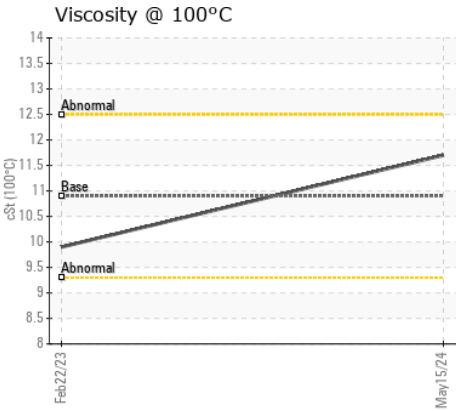
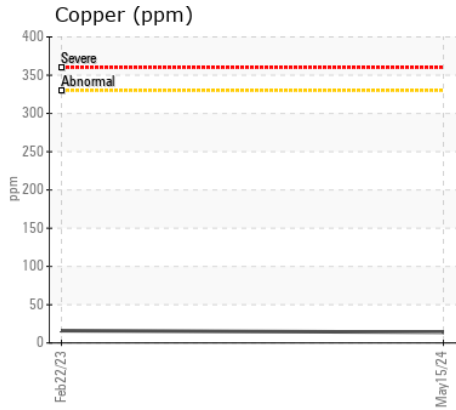
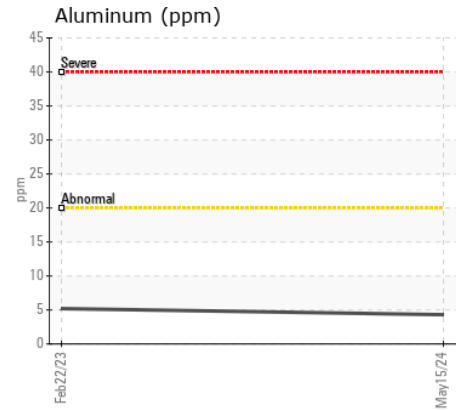
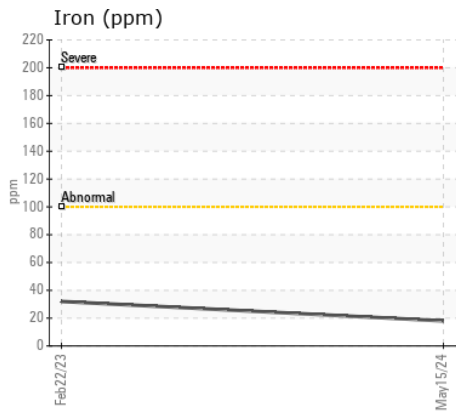
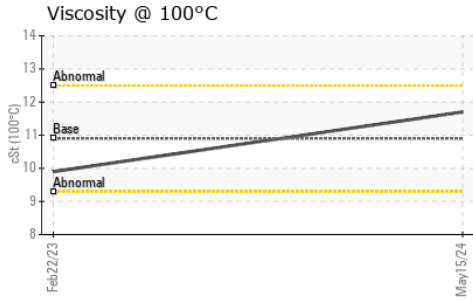
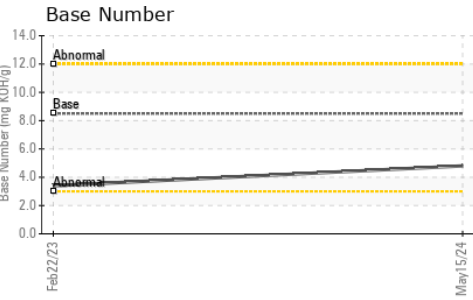
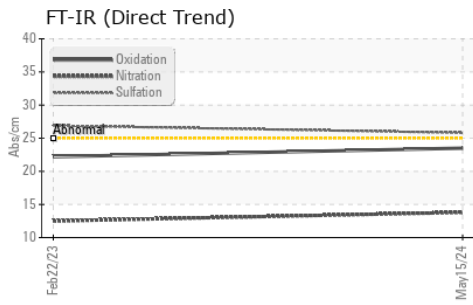
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 13 | 16 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 2 | --- |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0 | 0.1 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 13.8 | 12.5 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.8 | 26.9 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | --- |

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.

| | | | | | | |
|------------------|----------|-------------|------|-------------|------|-----|
| Sodium | ppm | ASTM D5185m | | 6 | 6 | --- |
| Boron | ppm | ASTM D5185m | 250 | 15 | 15 | --- |
| Barium | ppm | ASTM D5185m | 10 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | 70 | 66 | --- |
| Manganese | ppm | ASTM D5185m | | 3 | 2 | --- |
| Magnesium | ppm | ASTM D5185m | 450 | 795 | 573 | --- |
| Calcium | ppm | ASTM D5185m | 3000 | 1102 | 1001 | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 885 | 669 | --- |
| Zinc | ppm | ASTM D5185m | 1350 | 1082 | 823 | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | 3132 | 3205 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 23.5 | 22.2 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 4.8 | 3.4 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 10.9 | 11.7 | 9.9 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035958 **Received** : 28 May 2024
Lab Number : **06193414** **Tested** : 30 May 2024
Unique Number : 11050166 **Diagnosed** : 30 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

FRANCIS O DAY
 14900 SOUTHLAWN LN
 ROCKVILLE, MD
 US 20850
 Contact: JAMIE FORESTER

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: