



OIL ANALYSIS REPORT

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

Machine Id
349606-152250
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 XLE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | RY0123441 | RY0123438 | RY0123232 |
| Sample Date | | Client Info | | 22 Mar 2024 | 20 Mar 2024 | 19 Sep 2023 |
| Machine Age | mls | Client Info | | 14000 | 14000 | 0 |
| Oil Age | mls | Client Info | | 0 | 0 | 17000 |
| Filter Age | mls | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | --- | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 25 | 45 | 34 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 9 | 9 | 7 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 2 | 5 | 3 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

There is no indication of any contamination in the oil.

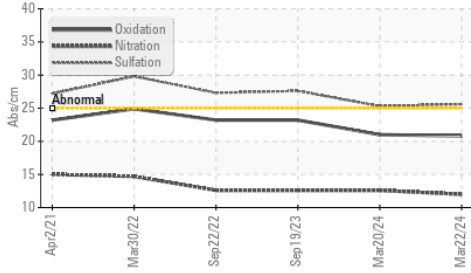
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 7 | 8 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | 7 | 7 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.7 | 0.9 | 1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.0 | 12.6 | 12.6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.6 | 25.3 | 27.6 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

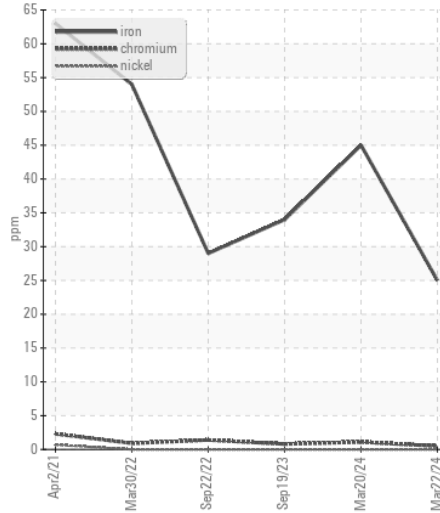
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 3 | 4 | 3 |
| Boron | ppm | ASTM D5185m | | 101 | 27 | 34 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 85 | 17 | 61 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 467 | 659 | 561 |
| Calcium | ppm | ASTM D5185m | | 1449 | 1383 | 1383 |
| Phosphorus | ppm | ASTM D5185m | 760 | 967 | 779 | 813 |
| Zinc | ppm | ASTM D5185m | 830 | 1170 | 907 | 1069 |
| Sulfur | ppm | ASTM D5185m | 2770 | 3350 | 3320 | 2852 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 20.8 | 21.0 | 23.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.7 | 6.1 | 6.0 | 6.0 |
| Visc @ 100°C | cSt | ASTM D445 | 14.9 | 13.3 | 12.0 | 12.7 |

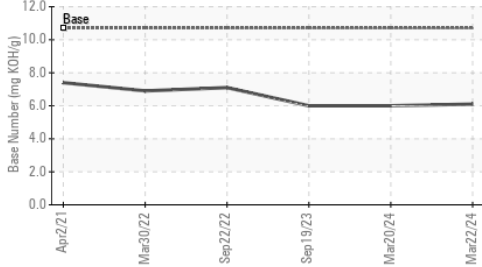
FT-IR (Direct Trend)



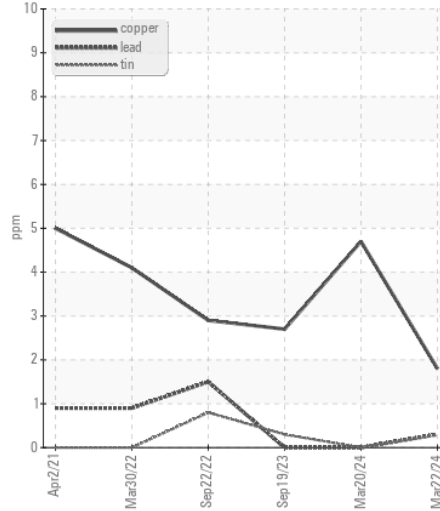
Ferrous Alloys



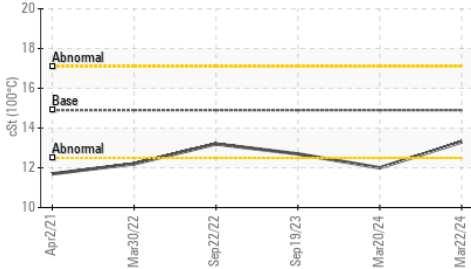
Base Number



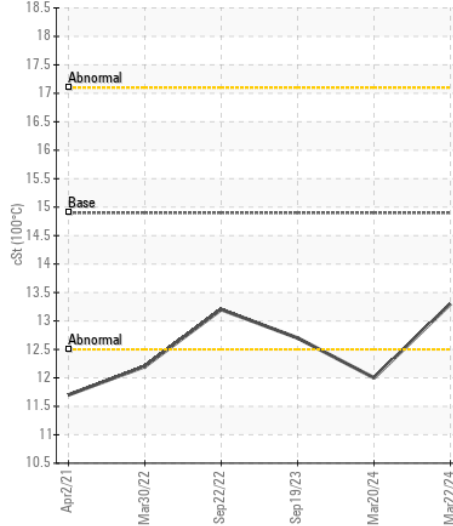
Non-ferrous Metals



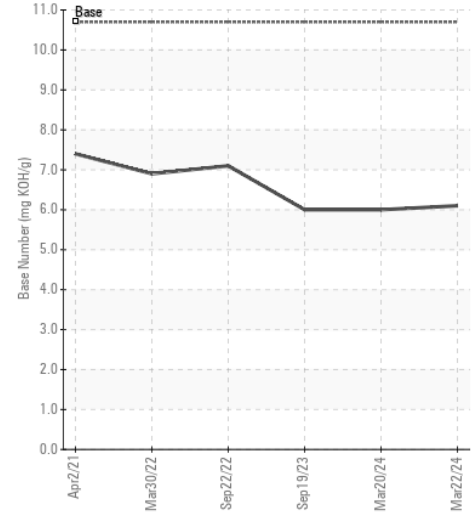
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RY0123441
Lab Number : 06187304
Unique Number : 11044056
Test Package : FLEET

Received : 22 May 2024
Tested : 23 May 2024
Diagnosed : 24 May 2024 - Sean Felton

Ryder Transportation Services
 240 NE 71 ST
 MIAMI, FL
 US 33138
 Contact: ANTHONY INGRAM
 anthonyingram@creamoland.com

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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