



OIL ANALYSIS REPORT

| | |
|-----------------|-----------------|
| WEAR | NORMAL |
| CONTAMINATION | MARGINAL |
| FLUID CONDITION | ABNORMAL |

Machine Id
846-4527
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | RPL0016932 | RPL0015080 | --- |
| Sample Date | | Client Info | | 22 Dec 2023 | 15 Sep 2023 | --- |
| Machine Age | mls | Client Info | | 223650 | 208046 | --- |
| Oil Age | mls | Client Info | | 15604 | 47580 | --- |
| Filter Age | mls | Client Info | | 15604 | 47580 | --- |
| Oil Changed | | Client Info | | Not Changd | Changed | --- |
| Filter Changed | | Client Info | | Not Changd | Changed | --- |
| Sample Status | | | | ABNORMAL | ABNORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 18 | 69 | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 4 | --- |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | 20 | --- |
| Lead | ppm | ASTM D5185m | >40 | 6 | 13 | --- |
| Copper | ppm | ASTM D5185m | >330 | <1 | 2 | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | 2 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

Light fuel dilution occurring.

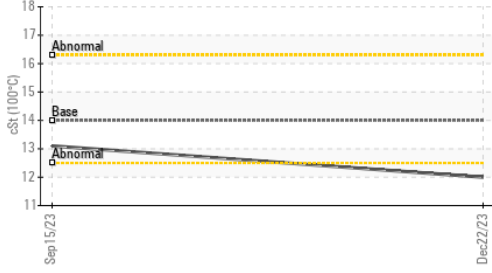
| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 5 | 8 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 11 | 44 | --- |
| Fuel | % | ASTM D3524 | >5 | ▲ 4.2 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.7 | 1.3 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.0 | 13.8 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.5 | 30.7 | --- |
| 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

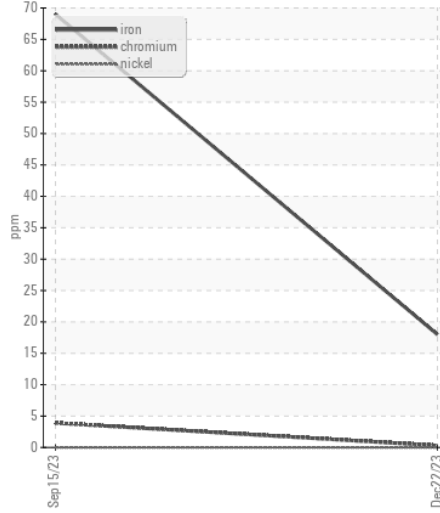
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

| | | | | | | |
|------------------|----------|-------------|-----|---------------|--------------|-----|
| Sodium | ppm | ASTM D5185m | | 2 | 2 | --- |
| Boron | ppm | ASTM D5185m | 0 | 27 | 3 | --- |
| Barium | ppm | ASTM D5185m | 0 | 0 | 2 | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 77 | 64 | --- |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | --- |
| Magnesium | ppm | ASTM D5185m | 0 | 579 | 926 | --- |
| Calcium | ppm | ASTM D5185m | | 1378 | 1152 | --- |
| Phosphorus | ppm | ASTM D5185m | | 681 | 1008 | --- |
| Zinc | ppm | ASTM D5185m | | 910 | 1232 | --- |
| Sulfur | ppm | ASTM D5185m | | 2512 | 2760 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 27.5 | 30.8 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 5.2 | ▲ 3.7 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14 | ▲ 12.0 | 13.1 | --- |

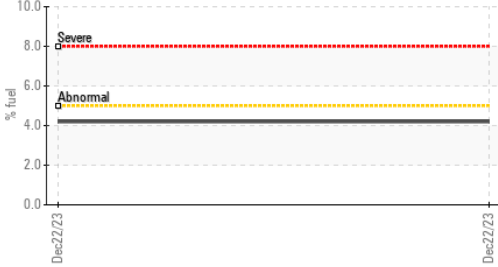
▲ Viscosity @ 100°C



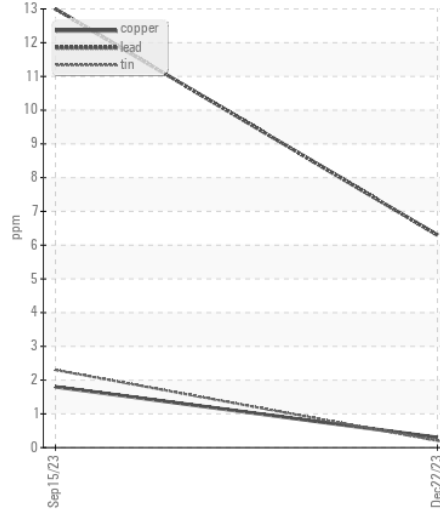
Ferrous Alloys



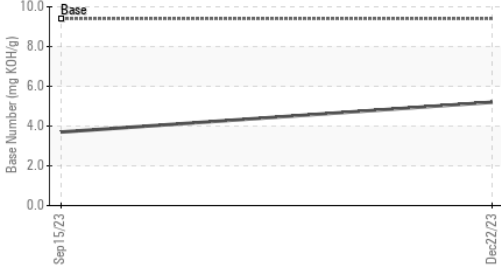
▲ Fuel Dilution



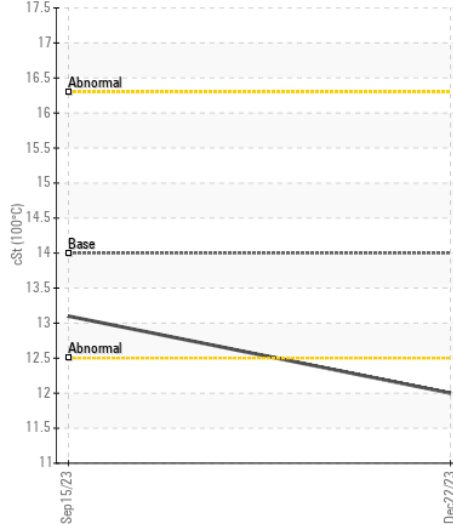
Non-ferrous Metals



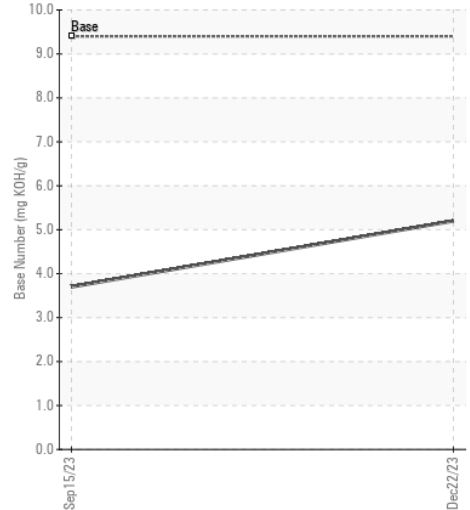
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0016932 **Recieved** : 11 Jan 2024
Lab Number : 06057809 **Diagnosed** : 15 Jan 2024
Unique Number : 10829191 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

RTL PACLEASE - 7007 - Fontana
 3121 South Riverside
 Bloomington, CA
 US 92316
 Contact: Rudy Trevizo
 TrevizoR@RushEnterprises.Com
 T: (909)829-1044
 F:

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)