# OIL ANALYSIS REPORT

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

Machine Id
## PETERBILT 857-4802
Component
## 1 Diesel Engine
Fluid
## MOBIL 15W40 (44 QTS)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

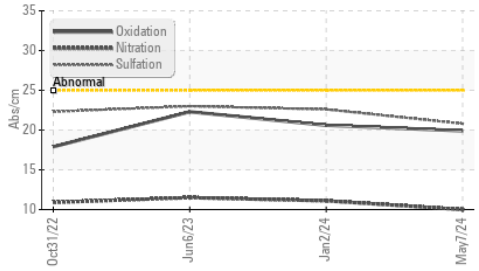
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

## FLUID CONDITION

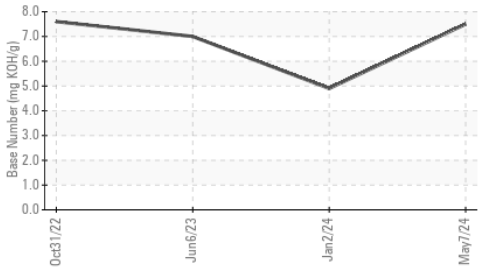
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | RPL0011794 | RPL0011732 | RPL0011623 |
| Sample Date | | Client Info | | 07 May 2024 | 02 Jan 2024 | 06 Jun 2023 |
| Machine Age | mls | Client Info | | 97701 | 77512 | 0 |
| Oil Age | mls | Client Info | | 20189 | 12349 | 0 |
| Filter Age | mls | Client Info | | 20189 | 12349 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | N/A |
| Filter Changed | | Client Info | | Changed | Changed | N/A |
| Sample Status | | | | NORMAL | ATTENTION | ATTENTION |
| Iron | ppm | ASTM D5185m | >165 | 15 | 29 | 44 |
| Chromium | ppm | ASTM D5185m | >5 | 1 | 2 | 3 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 9 | 30 | 31 |
| Lead | ppm | ASTM D5185m | >150 | 2 | 2 | 2 |
| Copper | ppm | ASTM D5185m | >90 | <1 | 2 | 7 |
| Tin | ppm | ASTM D5185m | >5 | <1 | 1 | 2 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >35 | 7 | 10 | 16 |
| Potassium | ppm | ASTM D5185m | >20 | 17 | 77 | 82 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >7.5 | 0.4 | 0.6 | 0.6 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.0 | 11.1 | 11.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.8 | 22.6 | 23.0 |
| 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 |
| Sodium | ppm | ASTM D5185m | >118 | 2 | 0 | 4 |
| Boron | ppm | ASTM D5185m | | 51 | 23 | 30 |
| Barium | ppm | ASTM D5185m | | 0 | 10 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 83 | 106 | 53 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 2 |
| Magnesium | ppm | ASTM D5185m | | 606 | 581 | 544 |
| Calcium | ppm | ASTM D5185m | | 1566 | 1292 | 1685 |
| Phosphorus | ppm | ASTM D5185m | | 806 | 775 | 742 |
| Zinc | ppm | ASTM D5185m | | 933 | 838 | 881 |
| Sulfur | ppm | ASTM D5185m | | 3293 | 3258 | 2604 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.9 | 20.6 | 22.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.5 | 4.9 | 7.0 |
| Visc @ 100°C | cSt | ASTM D445 | | 12.9 | 12.5 | 12.3 |

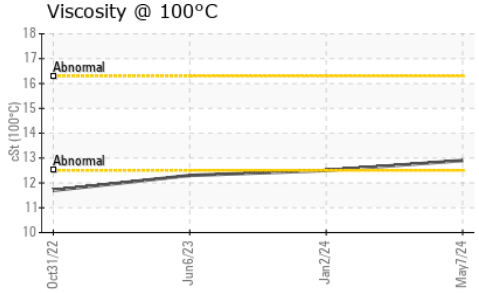
FT-IR (Direct Trend)



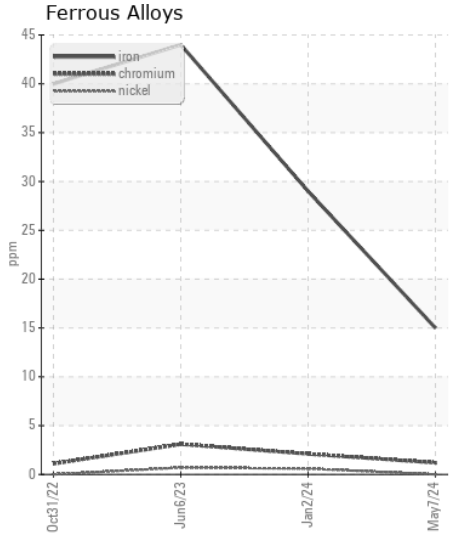

Base Number



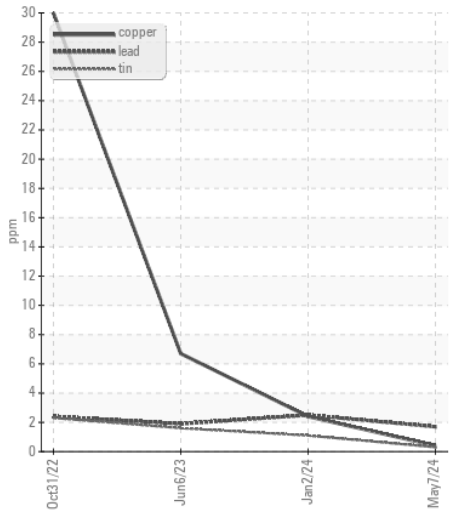

Viscosity @ 100°C



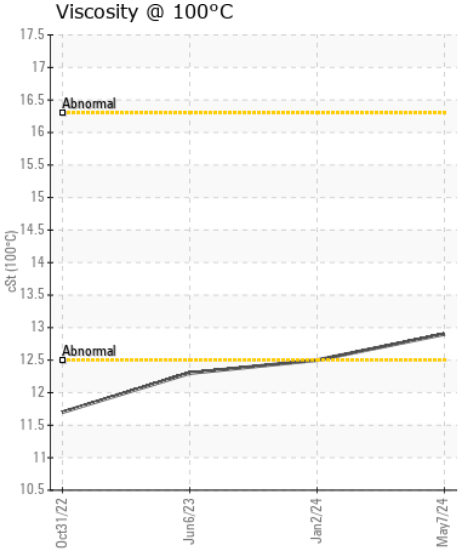

Ferrous Alloys



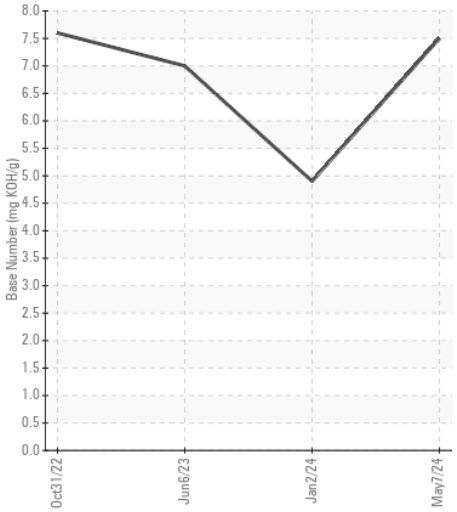

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RPL0011794
**Lab Number** : 06176902
**Unique Number** : 11022955
**Test Package** : FLEET

**Received** : 13 May 2024
**Tested** : 14 May 2024
**Diagnosed** : 14 May 2024 - Wes Davis

*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)*

**RTL PACLEASE - 7018 - West Texas**
1230 South Grandview
Odessa, TX
US 79761
Contact: David Johnson
JohnsonD@RushEnterprises.com
T: (512)401-7063
F: