

Machine Id
FREIGHTLINER 8425
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (46 QTS)

DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 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.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-----------------|--------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | PCA0088550 | PCA0045271 | PCA0045239 |
| Sample Date | Client Info | | | 26 Sep 2023 | 14 Feb 2022 | 06 Oct 2021 |
| Machine Age | mls Client Info | | | 766911 | 645543 | 0 |
| Oil Age | mls Client Info | | | 28486 | 25402 | 25000 |
| Oil Changed | Client Info | | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel | WC Method | >3.0 | | <1.0 | <1.0 | <1.0 |
| Glycol | WC Method | | | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >200 | 76 | 34 | 17 |
| Chromium | ppm | ASTM D5185m | >6 | 2 | 2 | 1 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >50 | 22 | 21 | 12 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >50 | 4 | 5 | 3 |
| Tin | ppm | ASTM D5185m | >6 | <1 | <1 | <1 |
| Antimony | ppm | ASTM D5185m | | --- | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

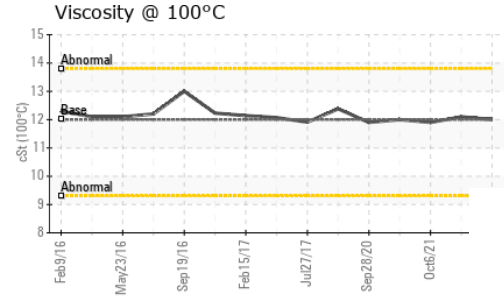
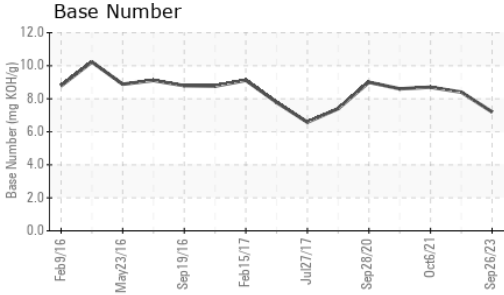
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 2 | 3 | 3 | 2 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 2 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 61 | 66 | 61 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 950 | 917 | 973 | 995 |
| Calcium | ppm | ASTM D5185m | 1050 | 1157 | 1189 | 1106 |
| Phosphorus | ppm | ASTM D5185m | 995 | 1121 | 1034 | 992 |
| Zinc | ppm | ASTM D5185m | 1180 | 1232 | 1292 | 1140 |
| Sulfur | ppm | ASTM D5185m | 2600 | 2755 | 3072 | 2236 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 5 | 5 | 5 |
| Sodium | ppm | ASTM D5185m | | 3 | 1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 4 | 3 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | >3 | 0.8 | 1 | 0.8 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.8 | 11.2 | 9.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.2 | 23.0 | 22.2 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.4 | 18.6 | 18.0 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.2 | 8.4 | 8.7 |

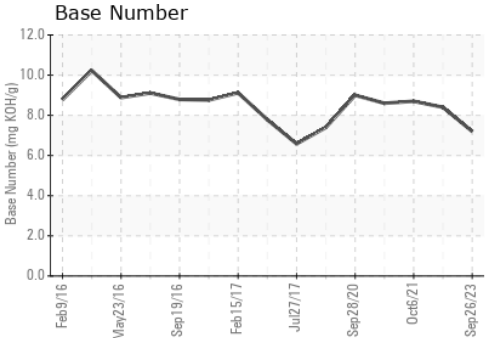
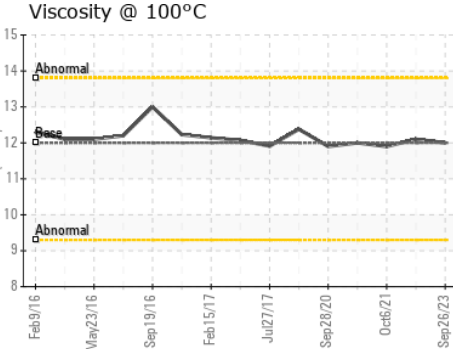
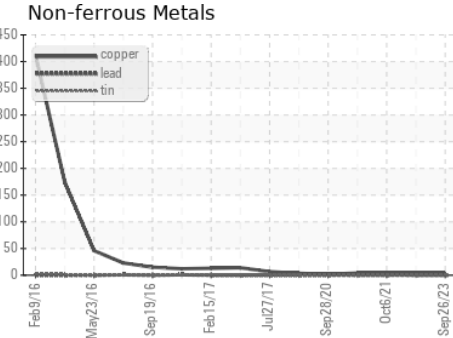
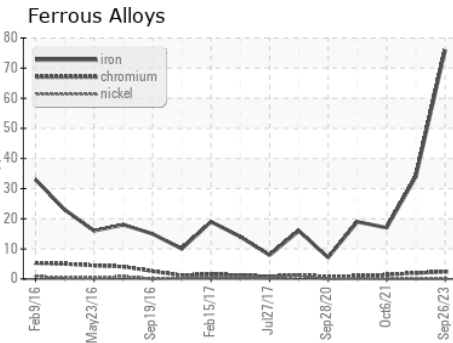
OIL ANALYSIS REPORT



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 12.0 | 12.1 |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0088550 **Received** : 31 Oct 2023
Lab Number : 05994084 **Diagnosed** : 31 Oct 2023
Unique Number : 10722444 **Diagnostician** : Wes Davis
Test Package : FLEET

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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)