FLEET LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

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

Area
**FLEET**
Machine Id
**VOLVO 2227112 (S/N 4V4NC9EH1RN643820)**
Component
**Diesel Engine**
Fluid
**PETRO CANADA DURON SHP 10W30 (42 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

Metal levels are typical for a new component breaking in.

## CONTAMINATION

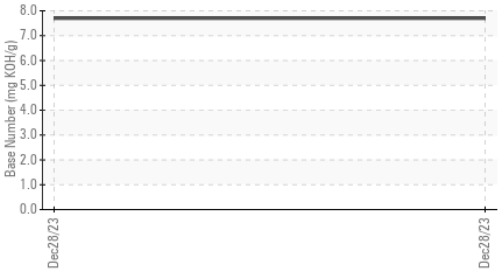
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

## 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.

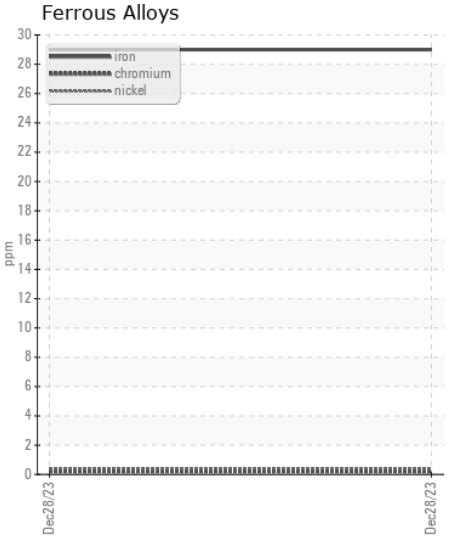
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | PCA0113693 | --- | --- |
| Sample Date | | Client Info | | 28 Dec 2023 | --- | --- |
| Machine Age | mls | Client Info | | 20194 | --- | --- |
| Oil Age | mls | Client Info | | 20194 | --- | --- |
| Filter Age | mls | Client Info | | 20194 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |
| Iron | ppm | ASTM D5185m | >100 | 29 | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >2 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 21 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 35 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | 56 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | 3 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185m | >25 | 52 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 102 | --- | --- |
| Fuel | | WC Method | >6.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.6 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 24.4 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185m | | 3 | --- | --- |
| Boron | ppm | ASTM D5185m | 2 | 272 | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 50 | 126 | --- | --- |
| Manganese | ppm | ASTM D5185m | 0 | 3 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 950 | 719 | --- | --- |
| Calcium | ppm | ASTM D5185m | 1050 | 1462 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 995 | 756 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1180 | 867 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 2600 | 2560 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.2 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.7 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 9.3 | --- | --- |

Base Number

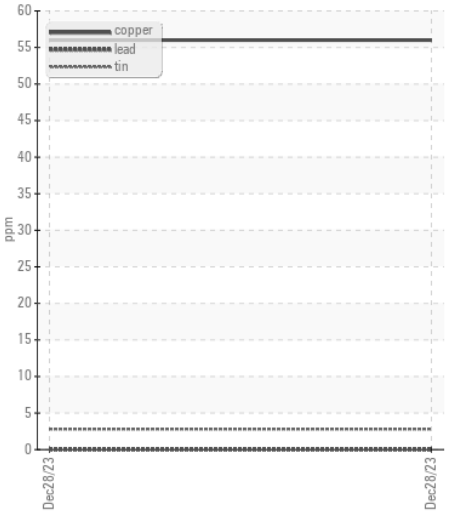



Viscosity @ 100°C

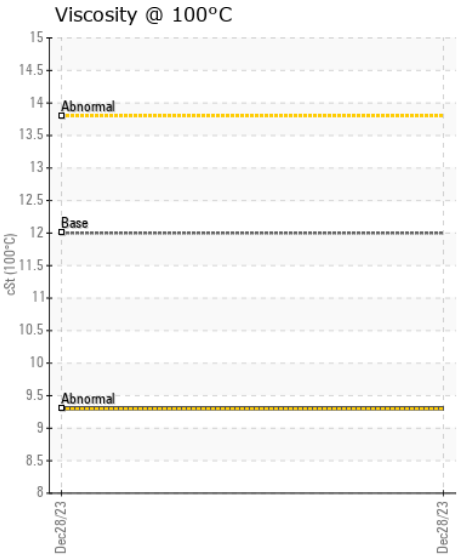

Ferrous Alloys



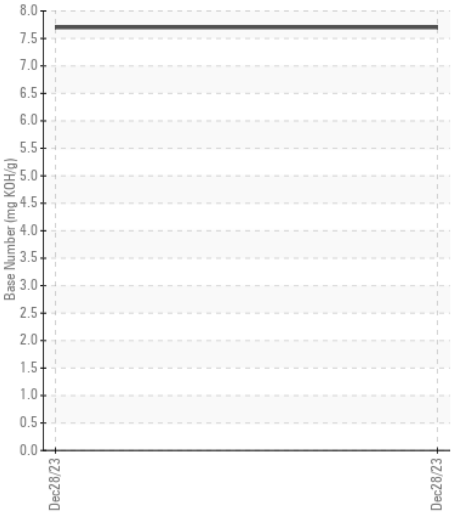

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0113693
**Lab Number** : 06055808
**Unique Number** : 10821757
**Test Package** : FLEET

**Recieved** : 09 Jan 2024
**Diagnosed** : 10 Jan 2024
**Diagnostician** : Jonathan Hester

*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)*

**PERDUE FARMS - ACCOMAC**
22520 LANKFORD HWY
ACCOMAC, VA
US 23301
Contact: PEGGY KIMES
peggy.kimes@perdue.com
T: (757)787-5304
F: (757)787-5208