

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Area
(65356Z) Walgreens - Tractor
 Machine Id
[Walgreens - Tractor] 136A624157
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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. No other contaminants were detected in the oil.

Fluid Condition

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

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|----------|----------|
| Sample Number | Client Info | PCA0111086 | --- | --- |
| Sample Date | Client Info | 11 Dec 2023 | --- | --- |
| Machine Age | mls Client Info | 49091 | --- | --- |
| Oil Age | mls Client Info | 49091 | --- | --- |
| Oil Changed | Client Info | Changed | --- | --- |
| Sample Status | | NORMAL | --- | --- |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|----------------|----------------|----------|----------|
| Fuel | WC Method >5 | <1.0 | --- | --- |
| Water | WC Method >0.2 | NEG | --- | --- |
| Glycol | WC Method | NEG | --- | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|----------|----------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185m >80 | 86 | --- | --- |
| Chromium | ppm ASTM D5185m >5 | 6 | --- | --- |
| Nickel | ppm ASTM D5185m >2 | 1 | --- | --- |
| Titanium | ppm ASTM D5185m | <1 | --- | --- |
| Silver | ppm ASTM D5185m >3 | 0 | --- | --- |
| Aluminum | ppm ASTM D5185m >30 | 194 | --- | --- |
| Lead | ppm ASTM D5185m >30 | <1 | --- | --- |
| Copper | ppm ASTM D5185m >150 | 171 | --- | --- |
| Tin | ppm ASTM D5185m >5 | 4 | --- | --- |
| Vanadium | ppm ASTM D5185m | <1 | --- | --- |
| Cadmium | ppm ASTM D5185m | <1 | --- | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|----------------------|--------------|----------|----------|
| Boron | ppm ASTM D5185m 2 | 36 | --- | --- |
| Barium | ppm ASTM D5185m 0 | <1 | --- | --- |
| Molybdenum | ppm ASTM D5185m 50 | 38 | --- | --- |
| Manganese | ppm ASTM D5185m 0 | 5 | --- | --- |
| Magnesium | ppm ASTM D5185m 950 | 559 | --- | --- |
| Calcium | ppm ASTM D5185m 1050 | 1673 | --- | --- |
| Phosphorus | ppm ASTM D5185m 995 | 713 | --- | --- |
| Zinc | ppm ASTM D5185m 1180 | 855 | --- | --- |
| Sulfur | ppm ASTM D5185m 2600 | 1975 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|---------------------|------------|----------|----------|
| Silicon | ppm ASTM D5185m >20 | 9 | --- | --- |
| Sodium | ppm ASTM D5185m | 8 | --- | --- |
| Potassium | ppm ASTM D5185m >20 | 431 | --- | --- |

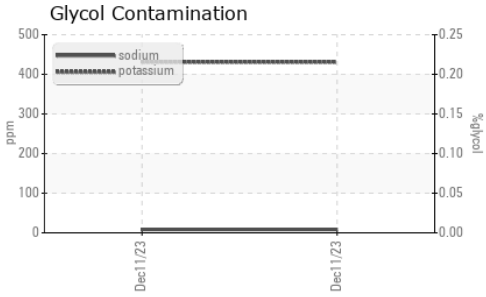
INFRA-RED

| method | limit/base | current | history1 | history2 |
|-----------|--------------------------|-------------|----------|----------|
| Soot % | % *ASTM D7844 >3 | 0.6 | --- | --- |
| Nitration | Abs/cm *ASTM D7624 >20 | 10.1 | --- | --- |
| Sulfation | Abs/.1mm *ASTM D7415 >30 | 22.7 | --- | --- |

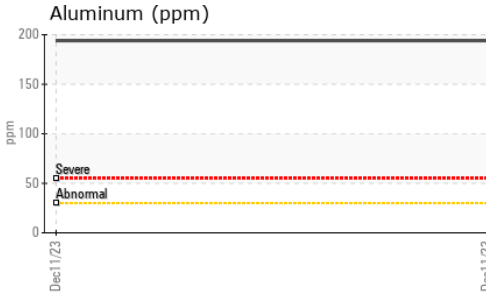
FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|------------------|--------------------------|-------------|----------|----------|
| Oxidation | Abs/.1mm *ASTM D7414 >25 | 24.7 | --- | --- |
| Base Number (BN) | mg KOH/g ASTM D2896 | 6.6 | --- | --- |

OIL ANALYSIS REPORT

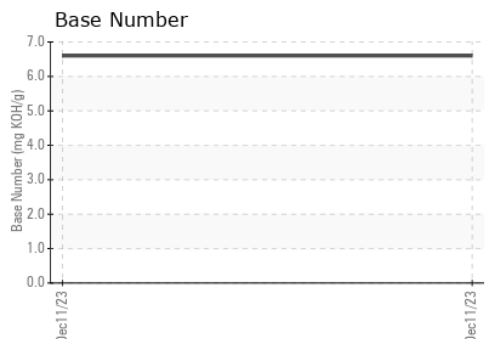
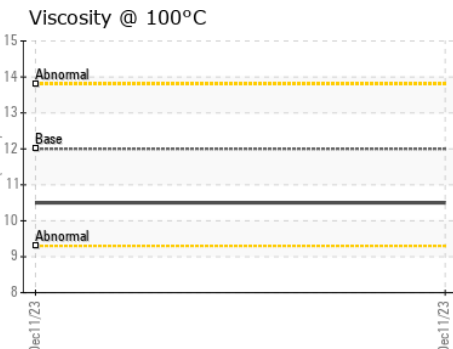
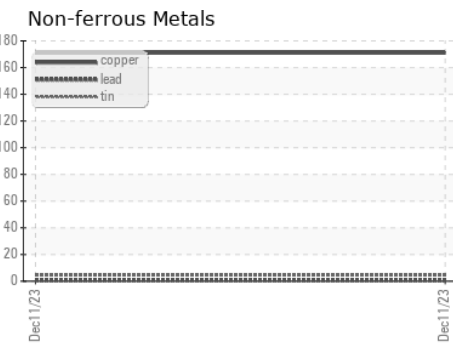
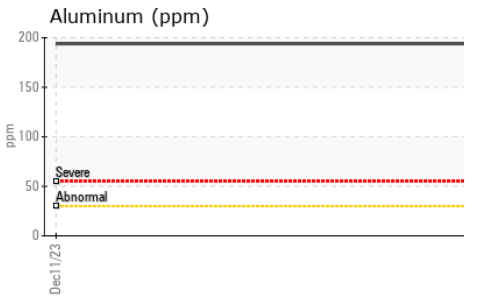
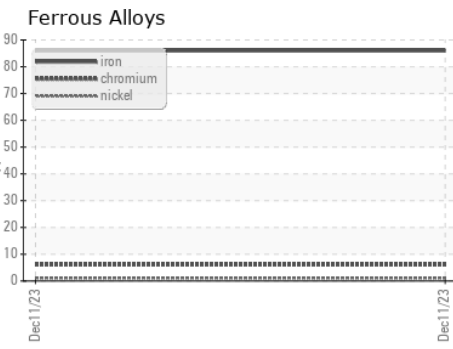
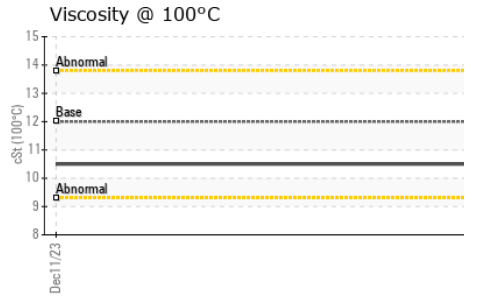


| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|--------------|----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual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



| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|-------------|----------|-----|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 10.5 | --- | --- |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0111086 **Received** : 21 Dec 2023
Lab Number : **06041845** **Diagnosed** : 22 Dec 2023
Unique Number : 10802453 **Diagnostician** : Don Baldrige
Test Package : FLEET

Transervice - Shop 1370 - Berkeley-Perrysburg
 28727 Oregon Road
 Perrysburg, OH
 US 43551
 Contact: Curtis Hart
 chart@transervice.com
 T: (419)666-3277
 F: (419)666-3279

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)