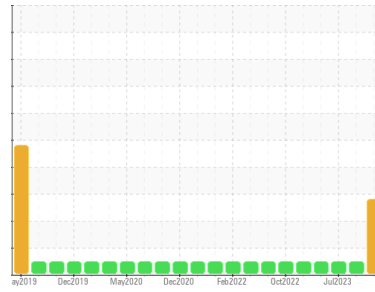


PROBLEM SUMMARY

Area
FLEET
 Machine Id
1926696
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

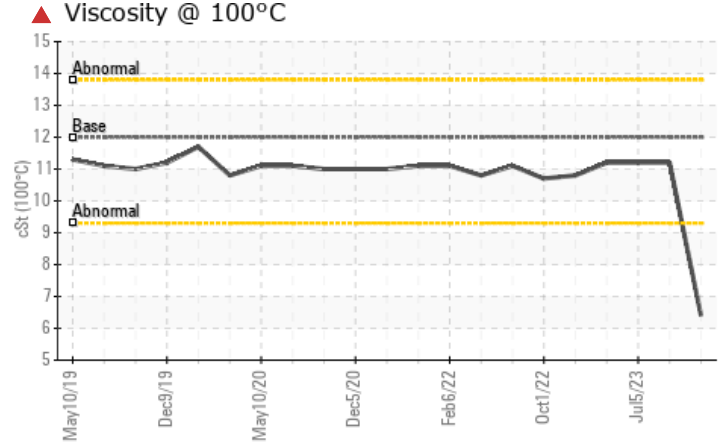
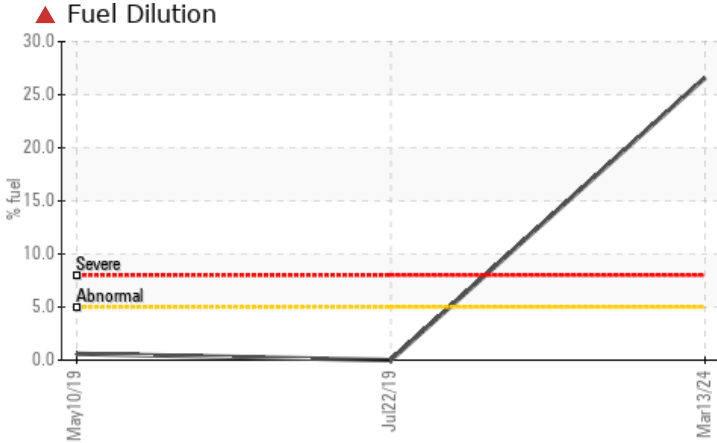
Sample Rating Trend



FUEL



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | SEVERE | NORMAL | NORMAL |
|---------------|-----|------------|-------|---------------|--------|--------|
| Fuel | % | ASTM D3524 | >5 | ▲ 26.6 | <1.0 | <1.0 |
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | ▲ 6.4 | 11.2 | 11.2 |

Customer Id: PERSALMD
 Sample No.: PCA0118424
 Lab Number: 06143844
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|----------------------------|--------|------|---------|--|
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |
| Information Required | --- | --- | ? | Please specify the component make and model with your next sample. |
| Check Fuel/injector System | --- | --- | ? | We advise that you check the fuel injection system. |

HISTORICAL DIAGNOSIS

NORMAL



04 Sep 2023 Diag: Wes Davis

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



NORMAL



05 Jul 2023 Diag: Wes Davis

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



NORMAL



08 May 2023 Diag: Wes Davis

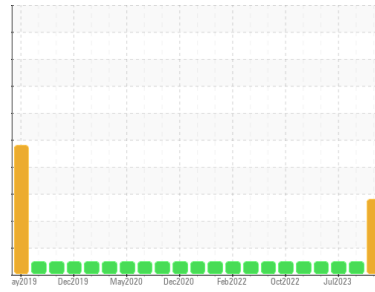
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
FLEET
Machine Id
1926696
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | PCA0118424 | PCA0101166 | PCA0088749 |
| Sample Date | Client Info | | | 13 Mar 2024 | 04 Sep 2023 | 05 Jul 2023 |
| Machine Age | mls | Client Info | | 467785 | 0 | 429703 |
| Oil Age | mls | Client Info | | 20000 | 0 | 20000 |
| Oil Changed | Client Info | | | Changed | N/A | Changed |
| Sample Status | | | | SEVERE | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | >0.2 | | NEG | NEG | NEG |
| Glycol | WC Method | | | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >100 | 5 | 8 | 21 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 51 | <1 | 2 |
| Silver | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | <1 | 2 | 4 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

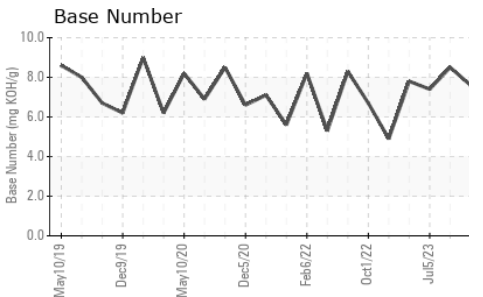
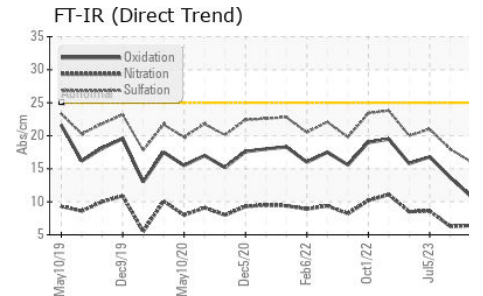
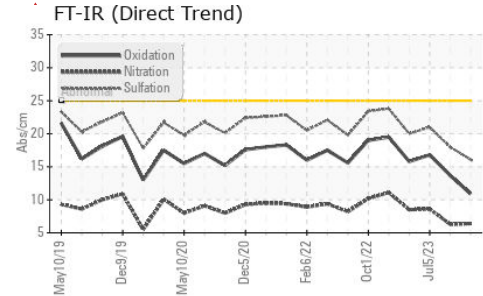
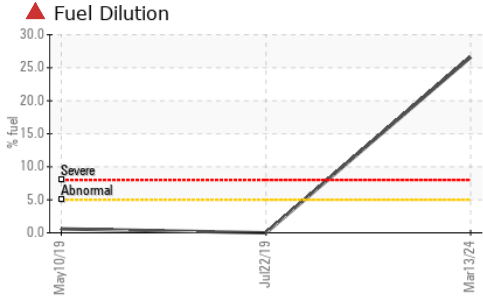
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 2 | 83 | 3 | 1 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m | 50 | 10 | 60 | 59 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 950 | 363 | 1027 | 865 |
| Calcium | ppm | ASTM D5185m | 1050 | 1127 | 1182 | 1115 |
| Phosphorus | ppm | ASTM D5185m | 995 | 683 | 1092 | 971 |
| Zinc | ppm | ASTM D5185m | 1180 | 799 | 1397 | 1220 |
| Sulfur | ppm | ASTM D5185m | 2600 | 2832 | 4115 | 3177 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|---------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 4 | 4 |
| Sodium | ppm | ASTM D5185m | | <1 | 4 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 3 | 3 |
| Fuel | % | ASTM D3524 | >5 | ▲ 26.6 | <1.0 | <1.0 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.2 | 0.4 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.4 | 6.3 | 8.6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 16.1 | 18.0 | 21.0 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 10.9 | 13.7 | 16.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.6 | 8.5 | 7.4 |

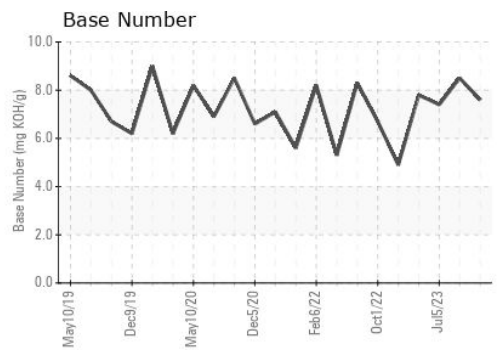
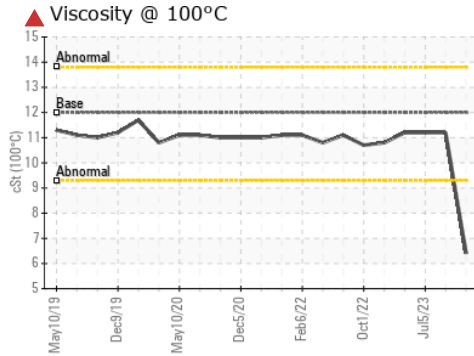
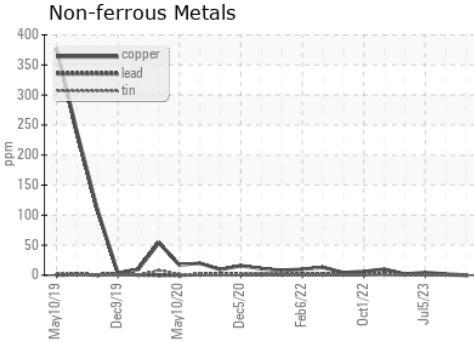
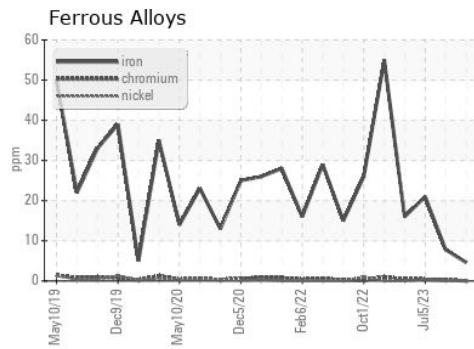
OIL ANALYSIS REPORT



| 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 | ▲ 6.4 | 11.2 | 11.2 |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0118424 **Received** : 10 Apr 2024
Lab Number : **06143844** **Tested** : 15 Apr 2024
Unique Number : 10968652 **Diagnosed** : 15 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

PERDUE FARMS - SALISBURY
 7036 ZION CHURCH ROAD
 SALISBURY, MD
 US 21802
 Contact: RICHARD O'NEAL
 richard.oneal@perdue.com
 T: (410)543-3628
 F: (410)341-2164

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)