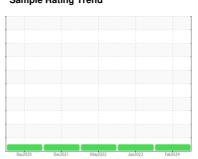


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 101559M

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

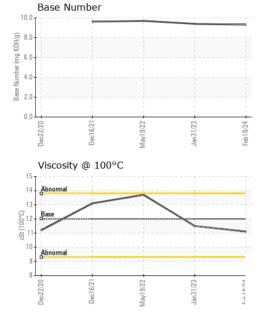
Fluid Condition

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

| QTS) | | Dec2020 | Dec2021 | May2022 Jan2023 | Feb2024 | |
|------------------|----------|-------------|------------|-----------------|-------------|-------------|
| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PCA0116897 | PCA0090025 | PCA0068555 |
| Sample Date | | Client Info | | 18 Feb 2024 | 31 Jan 2023 | 19 May 2022 |
| Machine Age | mls | Client Info | | 35256 | 27353 | 0 |
| Oil Age | mls | Client Info | | 0 | 27353 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >100 | 37 | 20 | 32 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | <1 | <1 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 1 | 3 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 2 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 6 | 1 | 3 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 1 |
| Antimony | ppm | ASTM D5185m | | | | |
| 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 | 11 | 20 | 4 |
| Barium | ppm | ASTM D5185m | 0 | 2 | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m | 50 | 65 | 66 | 64 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 950 | 882 | 908 | 938 |
| Calcium | ppm | ASTM D5185m | 1050 | 1237 | 1150 | 1112 |
| Phosphorus | ppm | ASTM D5185m | 995 | 1069 | 1020 | 1088 |
| Zinc | ppm | ASTM D5185m | 1180 | 1225 | 1266 | 1308 |
| Sulfur | ppm | ASTM D5185m | 2600 | 3542 | 3820 | 3122 |
| CONTAMINAN | TS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >25 | 5 | 4 | 5 |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | <1 | 2 |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 0.2 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.0 | 6.0 | 7.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.3 | 17.7 | 19.1 |
| FLUID DEGRA | OATION | method | limit/base | current | history1 | history2 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.7 | 13.7 | 15.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 9.3 | 9.4 | 9.7 |
| | | | | | | |



OIL ANALYSIS REPORT



| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPE | RTIES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11 1 | 11.5 | 13.7 |

| I LOID I HOLL | | momod | 111111111111111111111111111111111111111 | Jase Current | Thotory | Tilot | 0.72 |
|-------------------|----------|-------------|---|--|----------|------------|------------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11.1 | 11.5 | 13.7 | |
| GRAPHS | | | | | | | |
| Iron (ppm) | | | | Lead (ppm) | ı | | |
| 250 200 Severe | | ! | | Severe | 1 | | |
| 450 | | | | 0 | | | |
| 100 - Abnormal | | | | Abnormal | | | |
| 50 | | | | 20 | | | |
| 2/20 | 9/22 + | 1/23 + | 8/24 | 02/20 | 9/22 - | 1/23 - | 8/24 |
| Dec22/20 | May19/22 | Jan31/23 | Feb18/24 | Dec22/20 | May19/22 | Jan31/23 | Feb18/24 |
| Aluminum (ppm) | | | | Chromium (| (ppm) | | |
| Severe | | ! | | Severe |] | | |
| E 30 | | | | E 30 | | | |
| 20 Abnormal | | ; ; ; | | Abnormal 20 | | | |
| 10 | | | | 10 | | | |
| Dec22/20 +- | 9/22 - | Jan31/23 - | Feb18/24 | Oec22/20 | 9/22 - | Jan31/23 - | Feb18/24 |
| Dec2 | May19/22 | Jan3 | Feb | | ~ | Jan3 | Feb |
| Copper (ppm) | | | | Silicon (ppn | n) | | |
| Severe Abnormal | | | | 80 Severe | - | | |
| | | 1 | | | | | |
| E 200 | | I I I | | Abnormal | | 1 | |
| 100 | | : : | | 20 | | 1 | |
| 2/20 | 9/22 - | 1/23 | 8/24 | 0ec22/20 + | 9/22 + | 1/23 | Feb18/24 |
| Dec22/20 | May19/22 | Jan31/23 | Feb18/24 | Dec22/20 | May19/22 | Jan31/23 | Feb |
| Viscosity @ 100°0 | С | | | Base Numb | er | | |
| Absorbed | | | | 0.0 J | | | |
| Base | | | | 8.00 (J.H. 8.00) 8.00 (J.H. 8 | | | |
| = 12 t | | | | 4.0 | | | |
| Abnormal | | | | 2.0 | | | |
| 87202/2 | 9/22 - | 1/23 + | 8/24 | 0.0 | 9/22 | 1/23 + | 9/24 |
| Dec22/20 | May19/22 | Jan31/23 | Feb18/24 | Dec22/20 | May19/22 | Jan31/23 | Feb18/24 - |
| | | | | | | | |





Laboratory

Sample No.

Lab Number : 06124707

Unique Number : 10938858 Test Package: MOB 1 (Additional Tests: TBN)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0116897 Received : 21 Mar 2024

Tested Diagnosed

: 22 Mar 2024 : 22 Mar 2024 - Wes Davis

US 08085 Contact: ED DAVIS edavis@millertransgroup.com

MILLER TRUCK LEASING #114

63 REPAUPO STATION ROAD

LOGAN TOWNSHIP, NJ

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. T: (856)214-3521 F: (856)214-3663

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: MILLOG [WUSCAR] 06124707 (Generated: 03/22/2024 04:37:28) Rev: 1

Contact/Location: ED DAVIS - MILLOG