

OIL ANALYSIS REPORT





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

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

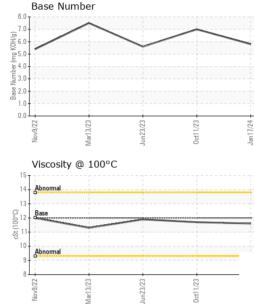
Fluid Condition

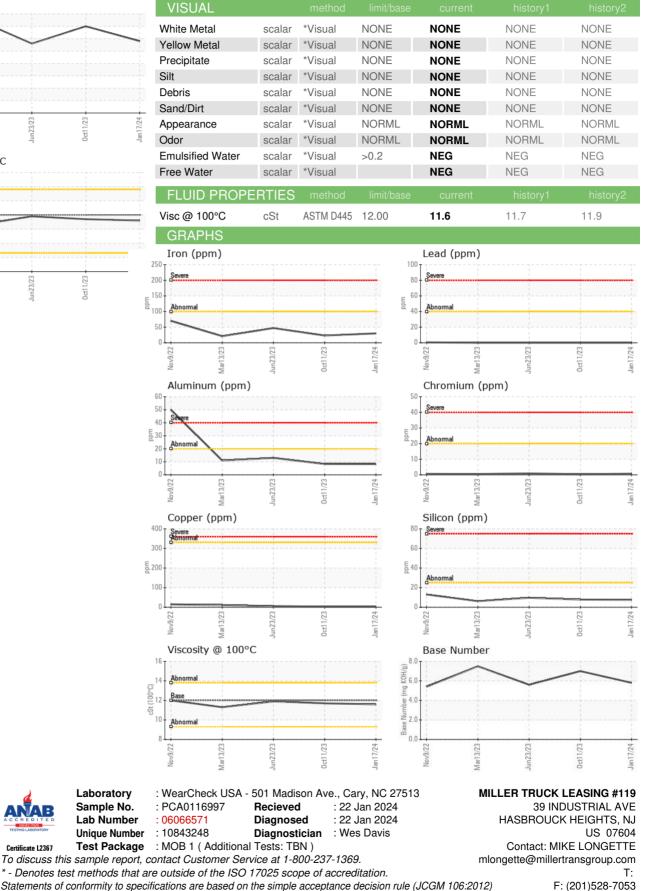
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| TS) | | Nov2022 | Mar2023 | Jun2023 Oct2023 | Jan2024 | |
|---------------------------------------|--------------------|-----------------------|----------------|-----------------|------------------|------------------|
| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PCA0116997 | PCA0106309 | PCA0092339 |
| Sample Date | | Client Info | | 17 Jan 2024 | 11 Oct 2023 | 23 Jun 2023 |
| Achine Age | mls | Client Info | | 134413 | 114886 | 90518 |
| Dil Age | mls | Client Info | | 0 | 0 | 0 |
| Dil Changed | | Client Info | | Changed | Not Changd | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Vater | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METAL | .S | method | limit/base | current | history1 | history2 |
| ron | ppm | ASTM D5185m | >100 | 30 | 23 | 47 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Fitanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | <1 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | 8 | 8 | 13 |
| ead | ppm | ASTM D5185m | >40 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 3 | 3 | 6 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 2 | <1 | 1 | 7 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Nolybdenum | ppm | ASTM D5185m | 50 | 60 | 62 | 63 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | 1 |
| Magnesium | ppm | ASTM D5185m | 950 | 976 | 1049 | 764 |
| Calcium | ppm | ASTM D5185m | 1050 | 1152 | 1224 | 1397 |
| Phosphorus | ppm | ASTM D5185m | 995 | 1070 | 1155 | 1025 |
| Zinc | ppm | ASTM D5185m | 1180 | 1300 | 1488 | 1233 |
| Sulfur | ppm | ASTM D5185m | 2600 | 2941 | 3395 | 2979 |
| CONTAMINAN | ITS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | | >25 | 8 | 8 | 10 |
| Sodium | ppm | ASTM D5185m | | 2 | 2 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 18 | 18 | 28 |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | *ASTM D7844 | >3 | 0.5 | 0.4 | 0.7 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 11.2 | 10.0 | 12.5 |
| | Abs/.1mm | *ASTM D7415 | >30 | 23.2 | 20.4 | 26.1 |
| Sulfation | | | | | | |
| Sulfation | DATION | method | limit/base | current | history1 | history2 |
| Sulfation FLUID DEGRA Oxidation | DATION Abs/.1mm | method *ASTM D7414 | limit/base >25 | current 20.9 | history1 17.4 | history2 22.9 |



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

Certificate L2367

Laboratory

Sample No.

Lab Number

Contact/Location: MIKE LONGETTE - MILRUT