

## **OIL ANALYSIS REPORT**

Sample Rating Trend





Area BD SHOP 200301 Component Diesel Engine

## PETRO CANADA DURON SHP 10W30 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

Fluic

### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

Elevated aluminum (AI) 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.

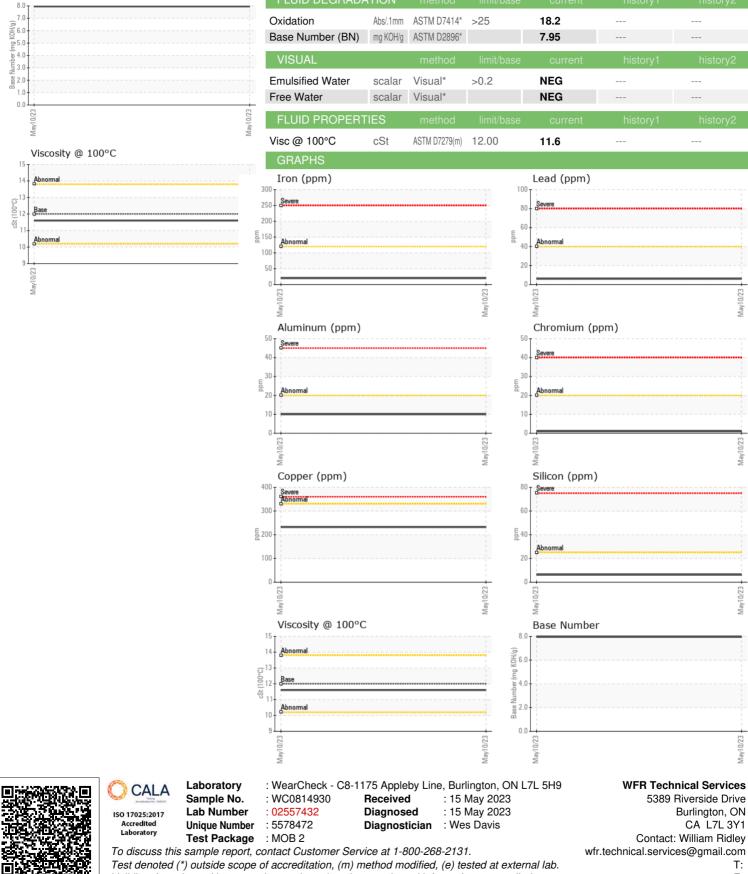
|               | GAL)     |               |            | May2023     |          |          |
|---------------|----------|---------------|------------|-------------|----------|----------|
| SAMPLE INFOR  | MATION   | method        | limit/base | current     | history1 | history2 |
| Sample Number |          | Client Info   |            | WC0814930   |          |          |
| Sample Date   |          | Client Info   |            | 10 May 2023 |          |          |
| Machine Age   | kms      | Client Info   |            | 119747      |          |          |
| Dil Age       | kms      | Client Info   |            | 55542       |          |          |
| Dil Changed   |          | Client Info   |            | Not Changd  |          |          |
| Sample Status |          |               |            | NORMAL      |          |          |
| CONTAMINATIC  | DN       | method        | limit/base | current     | history1 | history2 |
| Fuel          |          | WC Method     | >5         | <1.0        |          |          |
| Glycol        |          | WC Method     |            | NEG         |          |          |
| WEAR METALS   |          | method        | limit/base | current     | history1 | history2 |
| ron           | ppm      | ASTM D5185(m) | >120       | 20          |          |          |
| Chromium      | ppm      | ASTM D5185(m) | >20        | 1           |          |          |
| Nickel        | ppm      | ASTM D5185(m) | >5         | 7           |          |          |
| Titanium      | ppm      | ASTM D5185(m) | >2         | <1          |          |          |
| Silver        | ppm      | ASTM D5185(m) | >2         | <1          |          |          |
| Aluminum      | ppm      | ASTM D5185(m) | >20        | 10          |          |          |
| _ead          | ppm      | ASTM D5185(m) | >40        | 6           |          |          |
| Copper        | ppm      | ASTM D5185(m) | >330       | 232         |          |          |
| Tin           | ppm      | ASTM D5185(m) | >15        | 1           |          |          |
| Antimony      | ppm      | ASTM D5185(m) |            | <1          |          |          |
| Vanadium      | ppm      | ASTM D5185(m) |            | 0           |          |          |
| Beryllium     | ppm      | ASTM D5185(m) |            | 0           |          |          |
| Cadmium       | ppm      | ASTM D5185(m) |            | 0           |          |          |
| ADDITIVES     |          | method        | limit/base | current     | history1 | history2 |
| Boron         | ppm      | ASTM D5185(m) | 2          | 7           |          |          |
| Barium        | ppm      | ASTM D5185(m) | 0          | 0           |          |          |
| Volybdenum    | ppm      | ASTM D5185(m) | 50         | 60          |          |          |
| Vanganese     | ppm      | ASTM D5185(m) | 0          | 1           |          |          |
| Magnesium     | ppm      | ASTM D5185(m) | 950        | 896         |          |          |
| Calcium       | ppm      | ASTM D5185(m) | 1050       | 1255        |          |          |
| Phosphorus    | ppm      | ASTM D5185(m) | 995        | 940         |          |          |
| Zinc          | ppm      | ASTM D5185(m) | 1180       | 1093        |          |          |
| Sulfur        | ppm      | ASTM D5185(m) | 2600       | 2156        |          |          |
| Lithium       | ppm      | ASTM D5185(m) |            | <1          |          |          |
| CONTAMINANT   | S        | method        | limit/base | current     | history1 | history2 |
| Silicon       | ppm      | ASTM D5185(m) | >25        | 6           |          |          |
| Sodium        | ppm      | ASTM D5185(m) |            | 3           |          |          |
| Potassium     | ppm      | ASTM D5185(m) | >20        | 23          |          |          |
| INFRA-RED     |          | method        | limit/base | current     | history1 | history2 |
| Soot %        | %        | ASTM D7844*   | >4         | 0.3         |          |          |
| Nitration     | Abs/cm   | ASTM D7624*   | >20        | 9.8         |          |          |
| Sulfation     | Abs/.1mm | ASTM D7415*   | >30        | 21.7        |          |          |
|               |          |               |            |             |          |          |



Base Number

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FLUID DEGRADATION



Validity of results and interpretation are based on the sample and information as supplied.

Submitted By: William Ridley Page 2 of 2

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