

# **OIL ANALYSIS REPORT**

### Sample Rating Trend





Machine Id 119 Component **Diesel Engine** 

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

# DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

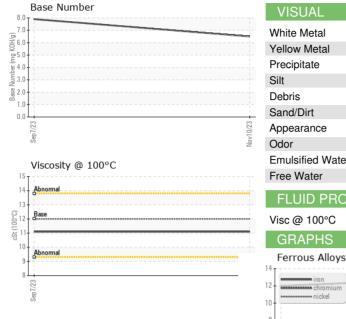
### **Fluid Condition**

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

| N SHP 10W30 (    | - GAL)   |             | Sep2023    | Nov2023     |             |          |
|------------------|----------|-------------|------------|-------------|-------------|----------|
| SAMPLE INFORI    | MATION   | method      | limit/base | current     | history1    | history2 |
| Sample Number    |          | Client Info |            | PCA0105217  | PCA0105195  |          |
| Sample Date      |          | Client Info |            | 10 Nov 2023 | 07 Sep 2023 |          |
| Machine Age      | mls      | Client Info |            | 203812      | 192940      |          |
| Oil Age          | mls      | Client Info |            | 10821       | 10950       |          |
| Oil Changed      |          | Client Info |            | Changed     | Changed     |          |
| Sample Status    |          |             |            | NORMAL      | NORMAL      |          |
| CONTAMINAT       | ION      | method      | limit/base | current     | history1    | history2 |
| Fuel             |          | WC Method   | >3.0       | <1.0        | <1.0        |          |
| Glycol           |          | WC Method   | 7 0.0      | NEG         | NEG         |          |
| WEAR METAL       | S        | method      | limit/base | current     | history1    | history2 |
|                  |          |             |            | 13          | 12          | ,        |
| Iron             | ppm      | ASTM D5185m | >120       |             |             |          |
| Chromium         | ppm      | ASTM D5185m | >20        | <1<br><1    | 0           |          |
| Nickel           | ppm      | ASTM D5185m | >5         | <1<br>0     | 0           |          |
| Titanium         | ppm      | ASTM D5185m | >2         |             |             |          |
| Silver           | ppm      | ASTM D5185m | >2         | 0           | 0           |          |
| Aluminum         | ppm      | ASTM D5185m | >20        | 4           |             |          |
| Lead             | ppm      | ASTM D5185m | >40        | 0           | <1          |          |
| Copper           | ppm      | ASTM D5185m | >330       | 2           | 2           |          |
| Tin              | ppm      | ASTM D5185m | >15        | <1          | <1          |          |
| Vanadium         | ppm      | ASTM D5185m |            | 0           | 0           |          |
| Cadmium          | ppm      | ASTM D5185m |            | 0           | 0           |          |
| ADDITIVES        |          | method      | limit/base | current     | history1    | history2 |
| Boron            | ppm      | ASTM D5185m | 2          | 2           | 0           |          |
| Barium           | ppm      | ASTM D5185m | 0          | 0           | 0           |          |
| Molybdenum       | ppm      | ASTM D5185m | 50         | 57          | 62          |          |
| Manganese        | ppm      | ASTM D5185m | 0          | <1          | <1          |          |
| Magnesium        | ppm      | ASTM D5185m | 950        | 946         | 1001        |          |
| Calcium          | ppm      | ASTM D5185m | 1050       | 1036        | 1117        |          |
| Phosphorus       | ppm      | ASTM D5185m | 995        | 1011        | 1029        |          |
| Zinc             | ppm      | ASTM D5185m | 1180       | 1253        | 1278        |          |
| Sulfur           | ppm      | ASTM D5185m | 2600       | 2935        | 3158        |          |
| CONTAMINAN       | TS       | method      | limit/base | current     | history1    | history2 |
| Silicon          | ppm      | ASTM D5185m | >25        | 7           | 2           |          |
| Sodium           | ppm      | ASTM D5185m |            | 3           | 4           |          |
| Potassium        | ppm      | ASTM D5185m | >20        | 3           | 5           |          |
| INFRA-RED        |          | method      | limit/base | current     | history1    | history2 |
| Soot %           | %        | *ASTM D7844 | >4         | 0.3         | 0.3         |          |
| Nitration        | Abs/cm   | *ASTM D7624 | >20        | 7.4         | 6.9         |          |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30        | 18.4        | 18.2        |          |
| FLUID DEGRA      | NOITAC   | method      | limit/base | current     | history1    | history2 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25        | 14.6        | 14.1        |          |
| Base Number (BN) | mg KOH/g | ASTM D2896  |            | 6.5         | 7.9         |          |



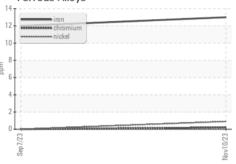
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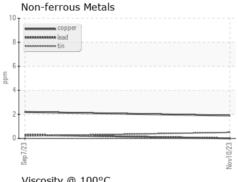


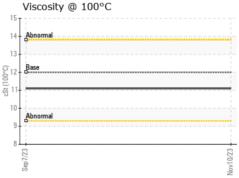
| VISUAL                  |        | method  | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal             | scalar | *Visual | NONE       | NONE    | NONE     |          |
| Yellow Metal            | 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    |          |
| <b>Emulsified Water</b> | scalar | *Visual | >0.2       | NEG     | NEG      |          |
| Free Water              | scalar | *Visual |            | NEG     | NEG      |          |
| FLUID PROPE             | DTIES  | method  | limit/hase | current | history1 | history2 |

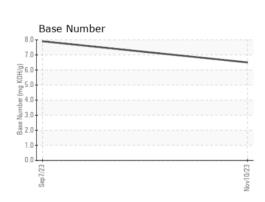
| LLUID FUOF   |     | memou     |       |      | HISTOLAL | HISTORYZ |
|--------------|-----|-----------|-------|------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11.1 | 11.1     |          |

### **GRAPHS**













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10740580 Test Package : FLEET

: PCA0105217 : 06006818

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Nov 2023 Diagnosed : 15 Nov 2023 Diagnostician : Wes Davis

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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)