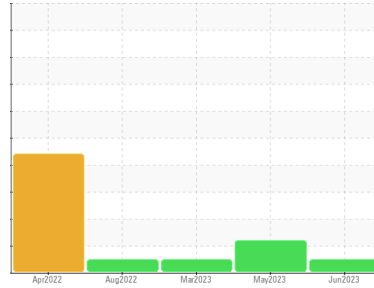


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**SJB2808**

Component  
**Diesel Engine**

Fluid  
**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.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history 1   | history 2   |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>PCA0100871</b>  | PCA0097794  | PCA0094512  |
| Sample Date   | Client Info |             | <b>22 Jun 2023</b> | 11 May 2023 | 07 Mar 2023 |
| Machine Age   | mls         | Client Info | <b>130731</b>      | 126123      | 120501      |
| Oil Age       | mls         | Client Info | <b>4608</b>        | 5622        | 10367       |
| Oil Changed   | Client Info |             | <b>Changed</b>     | Changed     | Changed     |
| Sample Status |             |             | <b>NORMAL</b>      | ABNORMAL    | NORMAL      |

## CONTAMINATION

|        | method    | limit/base | current        | history 1 | history 2 |
|--------|-----------|------------|----------------|-----------|-----------|
| Fuel   | WC Method | >5         | <b>&lt;1.0</b> | <1.0      | <1.0      |
| Glycol | WC Method |            | <b>NEG</b>     | NEG       | 0.0       |

## WEAR METALS

|          | method | limit/base       | current      | history 1 | history 2 |
|----------|--------|------------------|--------------|-----------|-----------|
| Iron     | ppm    | ASTM D5185m >100 | <b>19</b>    | 20        | 39        |
| Chromium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 0         | 1         |
| Nickel   | ppm    | ASTM D5185m >4   | <b>0</b>     | 0         | 0         |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0         | 0         |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | 0         | 0         |
| Aluminum | ppm    | ASTM D5185m >20  | <b>0</b>     | 3         | 5         |
| Lead     | ppm    | ASTM D5185m >40  | <b>0</b>     | 2         | 4         |
| Copper   | ppm    | ASTM D5185m >330 | <b>1</b>     | 2         | 4         |
| Tin      | ppm    | ASTM D5185m >15  | <b>0</b>     | <1        | <1        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0         | <1        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0         | 0         |

## ADDITIVES

|            | method | limit/base       | current      | history 1 | history 2 |
|------------|--------|------------------|--------------|-----------|-----------|
| Boron      | ppm    | ASTM D5185m 2    | <b>6</b>     | 10        | 7         |
| Barium     | ppm    | ASTM D5185m 0    | <b>11</b>    | 2         | 0         |
| Molybdenum | ppm    | ASTM D5185m 50   | <b>68</b>    | 73        | 75        |
| Manganese  | ppm    | ASTM D5185m 0    | <b>&lt;1</b> | <1        | 1         |
| Magnesium  | ppm    | ASTM D5185m 950  | <b>957</b>   | 822       | 872       |
| Calcium    | ppm    | ASTM D5185m 1050 | <b>1145</b>  | 1170      | 1256      |
| Phosphorus | ppm    | ASTM D5185m 995  | <b>1072</b>  | 1029      | 1006      |
| Zinc       | ppm    | ASTM D5185m 1180 | <b>1309</b>  | 1184      | 1263      |
| Sulfur     | ppm    | ASTM D5185m 2600 | <b>3824</b>  | 3280      | 3048      |

## CONTAMINANTS

|           | method | limit/base      | current   | history 1 | history 2 |
|-----------|--------|-----------------|-----------|-----------|-----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>3</b>  | 4         | 7         |
| Sodium    | ppm    | ASTM D5185m     | <b>34</b> | 58        | 102       |
| Potassium | ppm    | ASTM D5185m >20 | <b>12</b> | 23        | 34        |

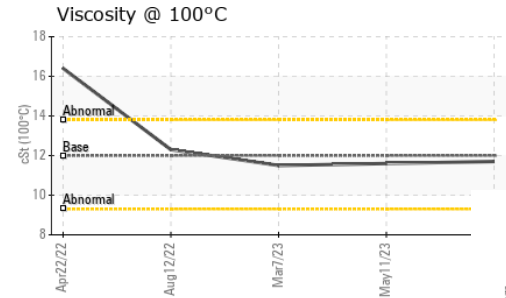
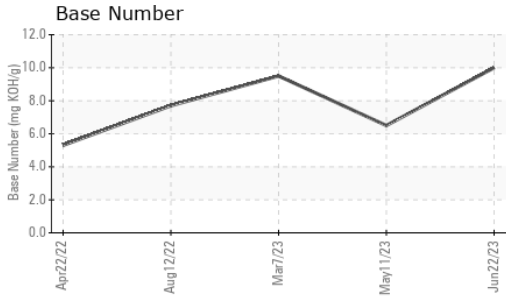
## INFRA-RED

|           | method   | limit/base      | current     | history 1 | history 2 |
|-----------|----------|-----------------|-------------|-----------|-----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.9</b>  | 1.3       | 1.8       |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>7.9</b>  | 14.1      | 11.7      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>20.4</b> | 29.4      | 22.7      |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history 1 | history 2 |
|------------------|----------|-----------------|-------------|-----------|-----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>15.2</b> | ▲ 27.6    | 17.6      |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>10.0</b> | 6.5       | 9.5       |

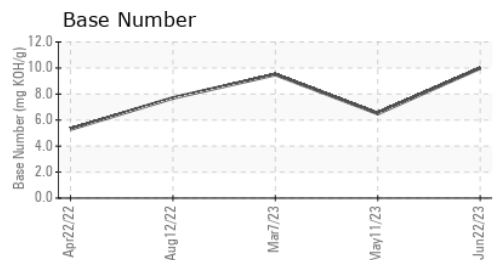
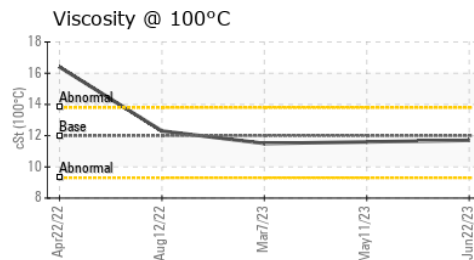
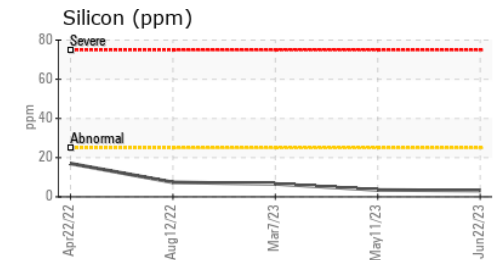
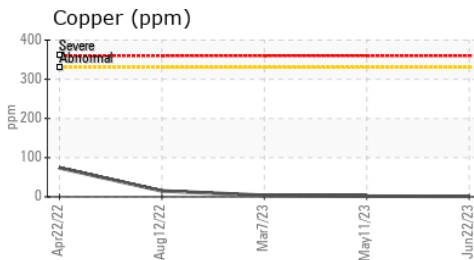
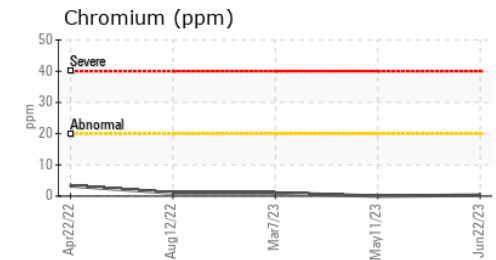
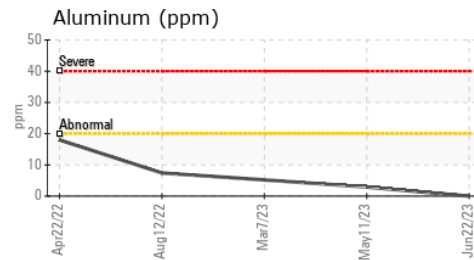
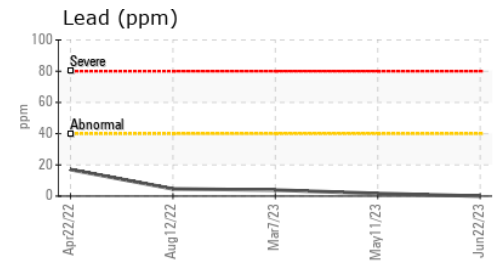
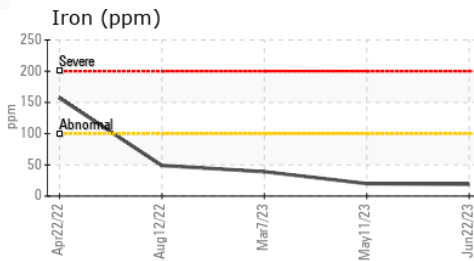
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| 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 | history 1 | history 2 |      |
|------------------|--------|------------|---------|-----------|-----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 12.00   | 11.7      | 11.6      | 11.5 |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0100871 **Received** : 03 Jul 2023  
**Lab Number** : 05888631 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10539114 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

63 REPAUPO STATION ROAD  
 LOGAN TOWNSHIP, NJ  
 US 08085  
 Contact: ED DAVIS  
 edavis@millertransgroup.com  
 T: (856)214-3521  
 F: (856)214-3663

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)