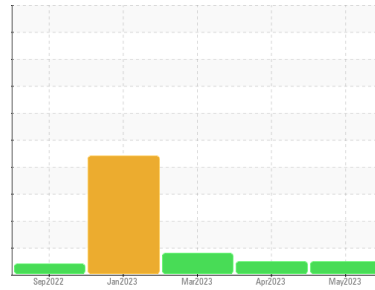


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**SJB636**

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>PCA0097731</b>  | PCA0094481  | PCA0094443  |
| Sample Date        | Client Info     |        |            | <b>17 May 2023</b> | 14 Apr 2023 | 08 Mar 2023 |
| Machine Age        | mls Client Info |        |            | <b>149364</b>      | 143350      | 0           |
| Oil Age            | mls Client Info |        |            | <b>0</b>           | 8850        | 0           |
| Oil Changed        | Client Info     |        |            | <b>Changed</b>     | Changed     | Changed     |
| Sample Status      |                 |        |            | <b>NORMAL</b>      | NORMAL      | ABNORMAL    |

| 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       | NEG       |

| WEAR METALS |     | method      | limit/base | current      | history 1 | history 2 |
|-------------|-----|-------------|------------|--------------|-----------|-----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>17</b>    | 30        | 47        |
| Chromium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | <1        | 1         |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | 0         | 0         |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0         | 0         |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0         | 0         |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>2</b>     | 2         | 4         |
| Lead        | ppm | ASTM D5185m | >40        | <b>&lt;1</b> | 1         | 4         |
| Copper      | ppm | ASTM D5185m | >330       | <b>1</b>     | 3         | 3         |
| Tin         | ppm | ASTM D5185m | >15        | <b>&lt;1</b> | <1        | 2         |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0         | 0         |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0         | 0         |

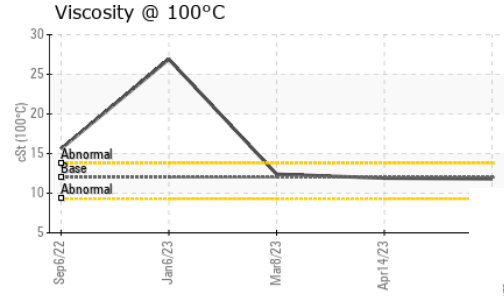
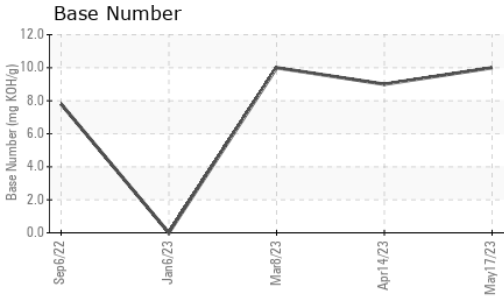
| ADDITIVES  |     | method      | limit/base | current      | history 1 | history 2 |
|------------|-----|-------------|------------|--------------|-----------|-----------|
| Boron      | ppm | ASTM D5185m | 2          | <b>11</b>    | 13        | 13        |
| Barium     | ppm | ASTM D5185m | 0          | <b>2</b>     | 0         | 0         |
| Molybdenum | ppm | ASTM D5185m | 50         | <b>64</b>    | 70        | 62        |
| Manganese  | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | <1        | 1         |
| Magnesium  | ppm | ASTM D5185m | 950        | <b>793</b>   | 950       | 924       |
| Calcium    | ppm | ASTM D5185m | 1050       | <b>1150</b>  | 1161      | 1337      |
| Phosphorus | ppm | ASTM D5185m | 995        | <b>1010</b>  | 1066      | 963       |
| Zinc       | ppm | ASTM D5185m | 1180       | <b>1155</b>  | 1301      | 1399      |
| Sulfur     | ppm | ASTM D5185m | 2600       | <b>2906</b>  | 3653      | 2978      |

| CONTAMINANTS |     | method      | limit/base | current  | history 1 | history 2 |
|--------------|-----|-------------|------------|----------|-----------|-----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>3</b> | 5         | 6         |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b> | 1         | 3         |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b> | 0         | 2         |

| INFRA-RED |          | method      | limit/base | current     | history 1 | history 2 |
|-----------|----------|-------------|------------|-------------|-----------|-----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>1.2</b>  | 1.8       | ▲ 3.3     |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>8.5</b>  | 10.2      | 14.1      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>20.7</b> | 20.7      | 26.3      |

| FLUID DEGRADATION |          | method      | limit/base | current     | history 1 | history 2 |
|-------------------|----------|-------------|------------|-------------|-----------|-----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>16.6</b> | 16.3      | 19.2      |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>10.0</b> | 9.0       | 10.0      |

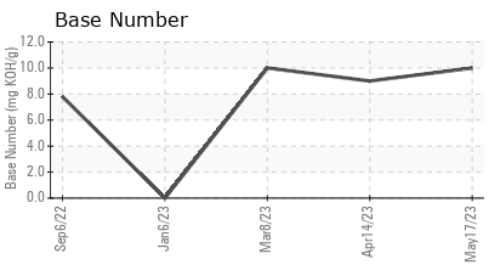
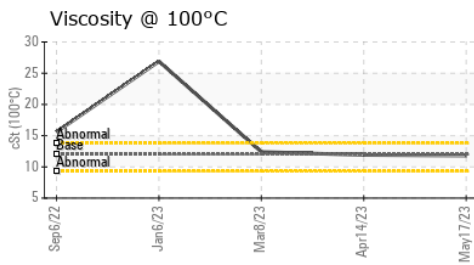
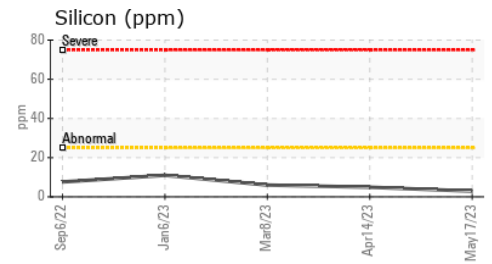
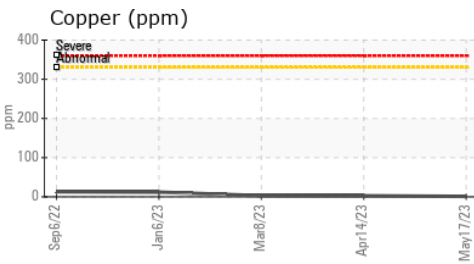
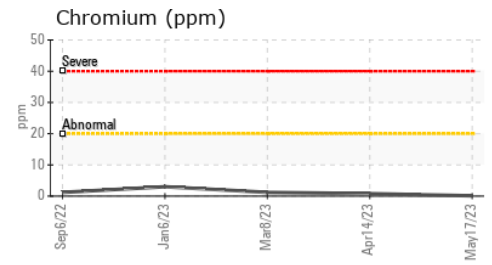
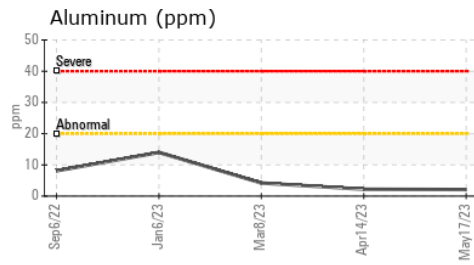
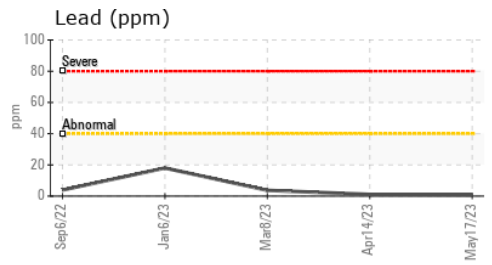
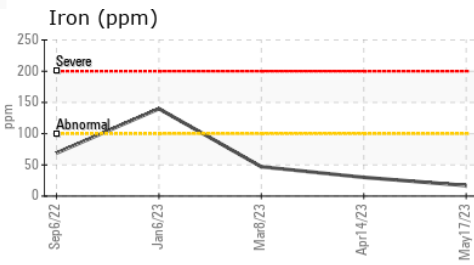
# OIL ANALYSIS REPORT



| 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   | 11.8      | 11.9      | 12.4 |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097731 **Received** : 03 Jul 2023  
**Lab Number** : 05888710 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10539193 **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)