

# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**PC PRODURO 10W - PCA05920947**

Component  
**New (Unused) Oil**  
Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### Recommendation

This is a baseline read-out on the submitted sample.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number      | Client Info |             |            | <b>PCA05920947</b> | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>09 Aug 2023</b> | ---      | ---      |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | ---      | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ---      | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >5         | <b>2</b>     | ---      | ---      |
| Chromium    | ppm | ASTM D5185m | >5         | <b>0</b>     | ---      | ---      |
| Nickel      | ppm | ASTM D5185m | >5         | <b>0</b>     | ---      | ---      |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |
| Silver      | ppm | ASTM D5185m | >5         | <b>0</b>     | ---      | ---      |
| Aluminum    | ppm | ASTM D5185m | >5         | <b>1</b>     | ---      | ---      |
| Lead        | ppm | ASTM D5185m | >5         | <b>&lt;1</b> | ---      | ---      |
| Copper      | ppm | ASTM D5185m | >5         | <b>0</b>     | ---      | ---      |
| Tin         | ppm | ASTM D5185m | >5         | <b>0</b>     | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |

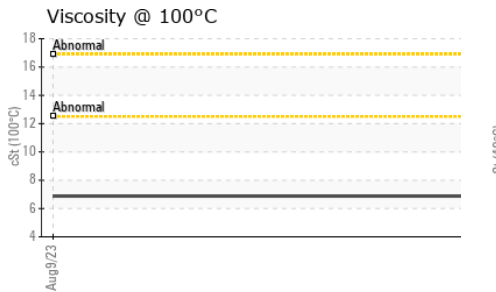
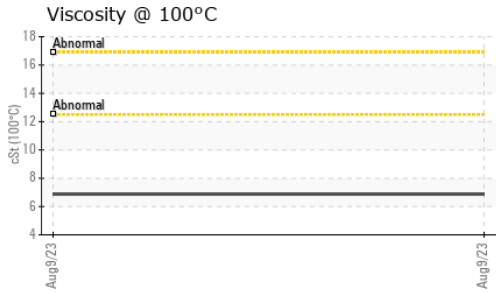
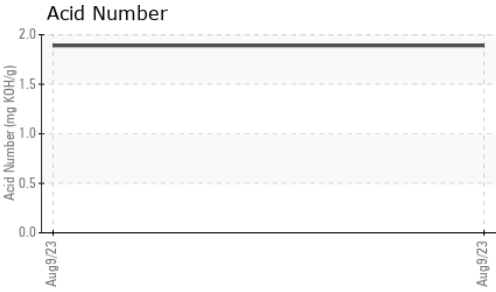
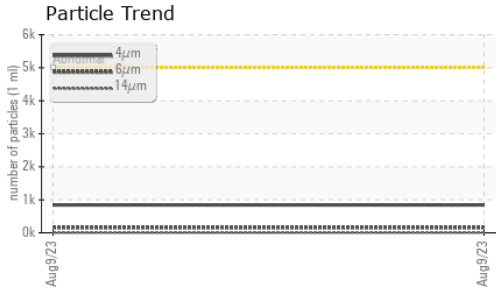
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |
| Barium     | ppm | ASTM D5185m |            | <b>1</b>     | ---      | ---      |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | ---      | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm | ASTM D5185m |            | <b>15</b>    | ---      | ---      |
| Calcium    | ppm | ASTM D5185m |            | <b>2845</b>  | ---      | ---      |
| Phosphorus | ppm | ASTM D5185m |            | <b>943</b>   | ---      | ---      |
| Zinc       | ppm | ASTM D5185m |            | <b>1177</b>  | ---      | ---      |
| Sulfur     | ppm | ASTM D5185m |            | <b>3825</b>  | ---      | ---      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >15        | <b>3</b>     | ---      | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b>     | ---      | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | ---      | ---      |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   | >5000      | <b>843</b>      | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>160</b>      | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >160       | <b>7</b>        | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >40        | <b>2</b>        | ---      | ---      |
| Particles >38µm   |  | ASTM D7647   | >10        | <b>1</b>        | ---      | ---      |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>1</b>        | ---      | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >19/17/14  | <b>17/14/10</b> | ---      | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>1.89</b> | ---      | ---      |

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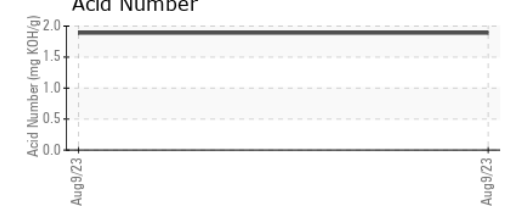
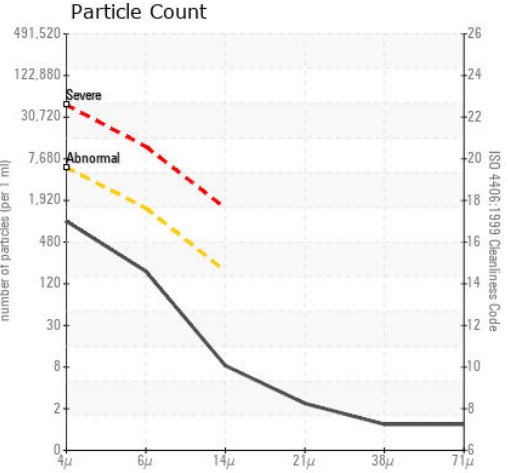
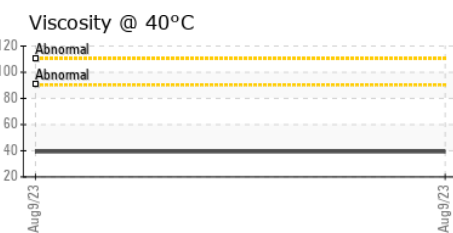
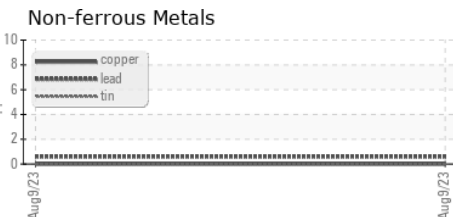
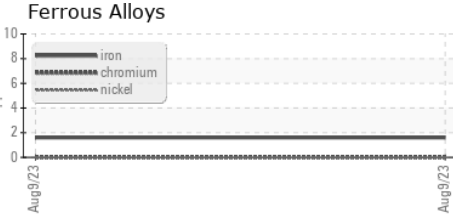
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | NEG     | ---      | ---      |
| Free Water       | scalar | *Visual    | NEG     | ---      | ---      |

| FLUID PROPERTIES     | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C          | cSt    | ASTM D445  | 39.3    | ---      | ---      |
| Visc @ 100°C         | cSt    | ASTM D445  | 6.88    | ---      | ---      |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 134     | ---      | ---      |

### SAMPLE IMAGES

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color         |        |            |         | no image | no image |
| Bottom        |        |            |         | no image | no image |

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA05920947 **Received** : 10 Aug 2023  
**Lab Number** : 05920947 **Diagnosed** : 11 Aug 2023  
**Unique Number** : 10592861 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: FT-IR, ICP-NewOil, KF, KV100, PrtCount, VI )

**PETRO CANADA AMERICA LUBRRICANTS INC**  
 MISSISSAUGA, ON  
 US  
 Contact: Jason Schaben  
 Jason.schaben@HFSinclair.com

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)