



| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Area
[68978]
Machine Id
OHT101
Component
Rear Right Final Drive
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: PM-1 sampled fluid)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PCA0109343 | PCA0087068 | PCA0062663 |
| Sample Date | | Client Info | | 04 Apr 2024 | 19 Oct 2023 | 05 Apr 2022 |
| Machine Age | hrs | Client Info | | 17749 | 17273 | 16935 |
| Oil Age | hrs | Client Info | | 17749 | 17273 | 16717 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | Changed | Not Changd |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >800 | 57 | 62 | 45 |
| Chromium | ppm | ASTM D5185m | >10 | 1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >75 | 4 | 1 | 2 |
| Lead | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >75 | 9 | 23 | 7 |
| Tin | ppm | ASTM D5185m | >8 | 1 | 2 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

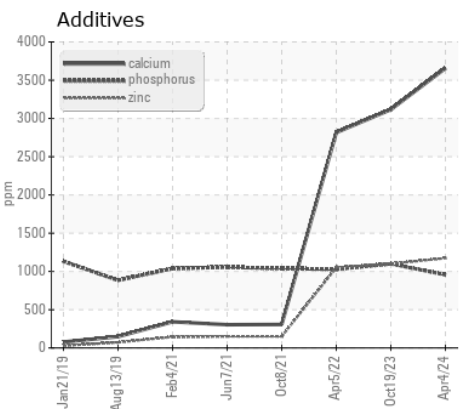
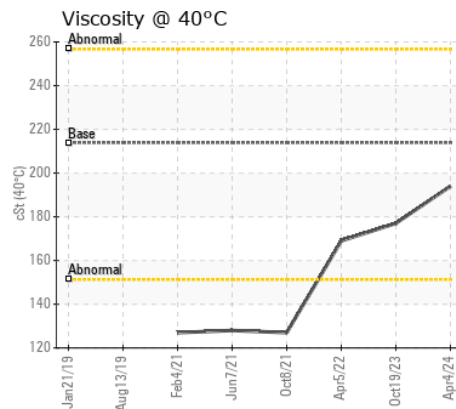
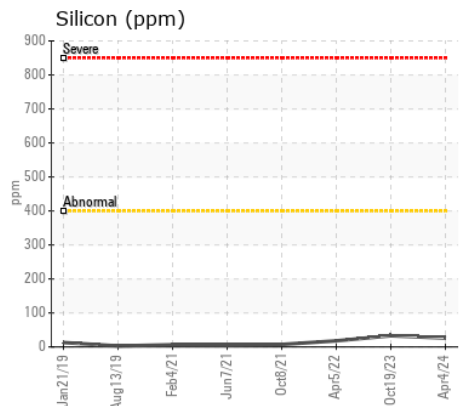
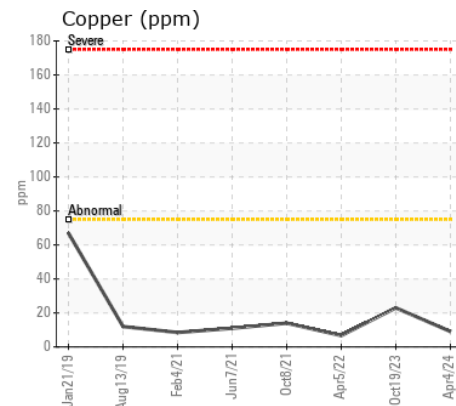
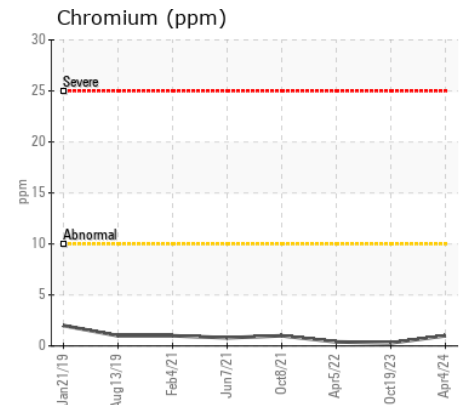
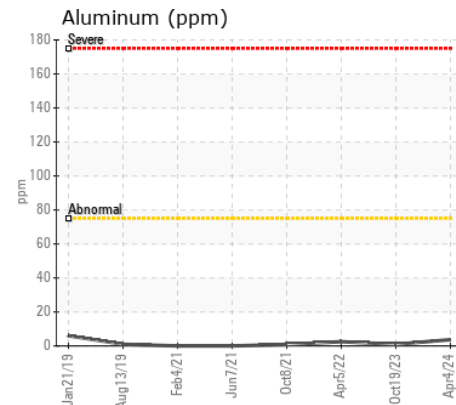
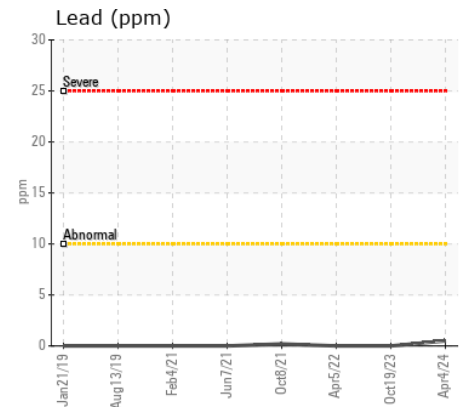
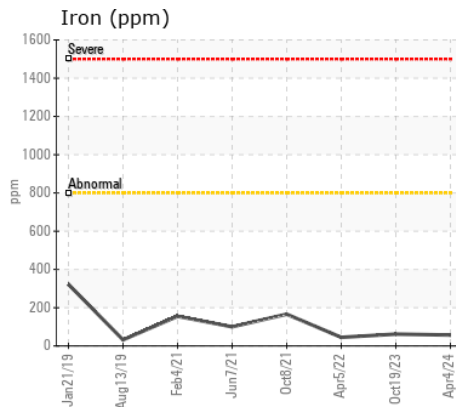
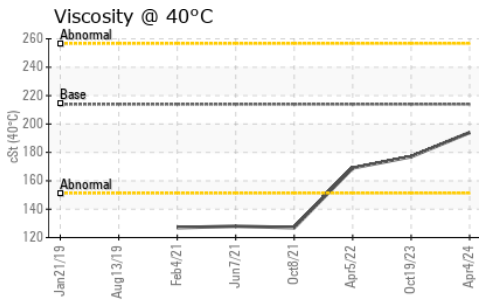
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >400 | 26 | 33 | 18 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|-------------|-----|-------------|-------|-------------|------|------|
| Sodium | ppm | ASTM D5185m | | 1 | 6 | 1 |
| Boron | ppm | ASTM D5185m | 2 | 5 | 38 | 35 |
| Barium | ppm | ASTM D5185m | 0 | 1 | 20 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 7 | 5 | 4 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 9 | 17 | 15 | 13 |
| Calcium | ppm | ASTM D5185m | 3114 | 3656 | 3116 | 2816 |
| Phosphorus | ppm | ASTM D5185m | 1099 | 956 | 1099 | 1029 |
| Zinc | ppm | ASTM D5185m | 1245 | 1173 | 1099 | 1051 |
| Sulfur | ppm | ASTM D5185m | 7086 | 4759 | 9741 | 6878 |
| Visc @ 40°C | cSt | ASTM D445 | 213.9 | 194 | 177 | 169 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109343
Lab Number : 06149096
Unique Number : 10979174
Test Package : MOB 1

Received : 15 Apr 2024
Tested : 16 Apr 2024
Diagnosed : 17 Apr 2024 - Sean Felton

Kemp Quarries - Muskogee Sand
 3395 W 50th St N
 Porter, OK
 US 74454
 Contact:

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)

muskogee@muskogeessand.com

T:
F: