



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



Machine Id
CATERPILLAR BH-27
Component
Diesel Engine
Fluid
PETRO CANADA 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | PCA0079181 | PCA0079209 | --- |
| Sample Date | | Client Info | | 21 Jun 2024 | 15 Mar 2024 | --- |
| Machine Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | N/A | N/A | --- |
| Filter Changed | | Client Info | | N/A | N/A | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 11 | 13 | --- |
| Chromium | ppm | ASTM D5185m | >20 | 1 | 0 | --- |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Silver | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 3 | 1 | --- |
| Lead | ppm | ASTM D5185m | >40 | 1 | <1 | --- |
| Copper | ppm | ASTM D5185m | >330 | 9 | 37 | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

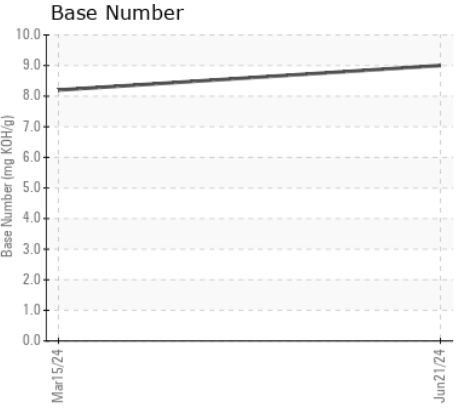
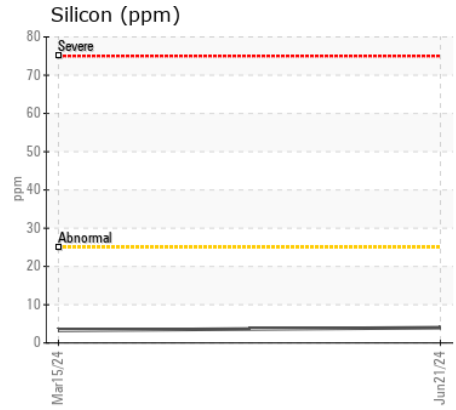
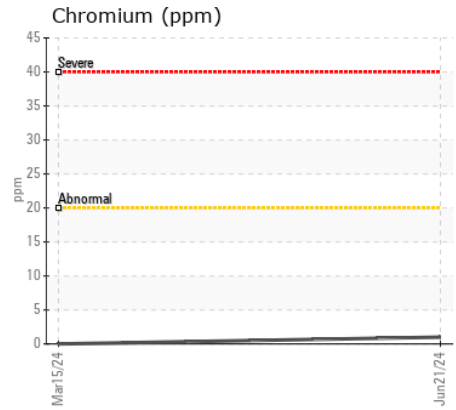
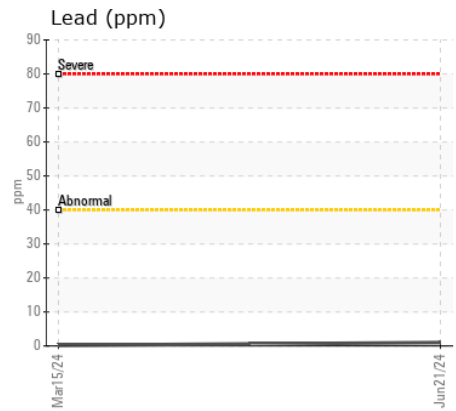
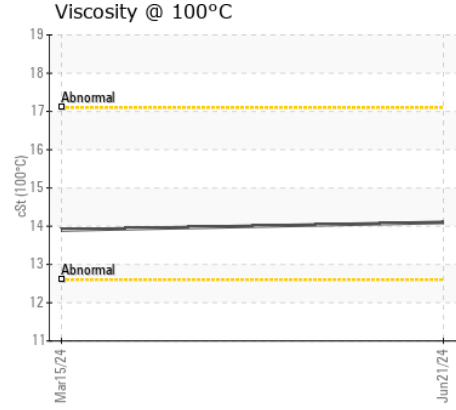
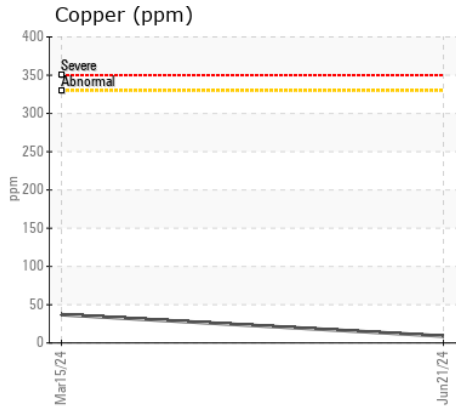
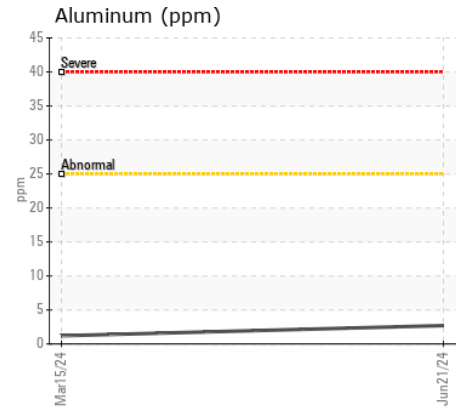
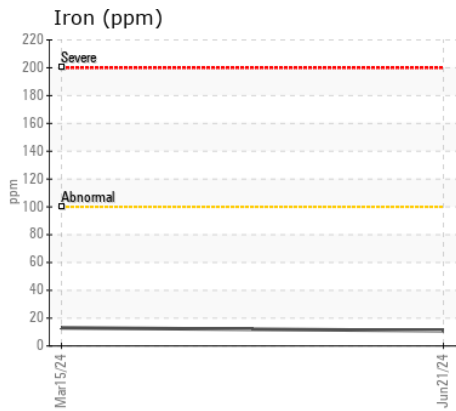
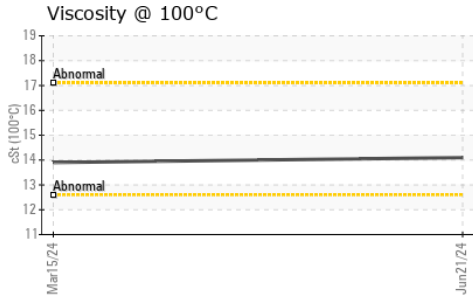
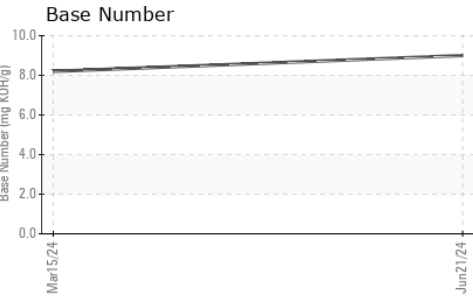
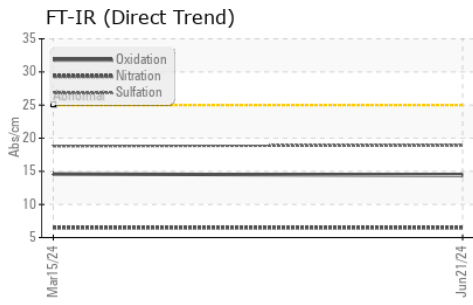
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 3 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 0 | --- |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.3 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.5 | 6.5 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.9 | 18.8 | --- |
| 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 | --- |

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.

| | | | | | | |
|------------------|----------|-------------|-----|--------------|------|-----|
| Sodium | ppm | ASTM D5185m | | 2 | <1 | --- |
| Boron | ppm | ASTM D5185m | | 4 | 3 | --- |
| Barium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | 60 | 59 | --- |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | --- |
| Magnesium | ppm | ASTM D5185m | | 1002 | 1018 | --- |
| Calcium | ppm | ASTM D5185m | | 1120 | 1165 | --- |
| Phosphorus | ppm | ASTM D5185m | | 1026 | 1015 | --- |
| Zinc | ppm | ASTM D5185m | | 1272 | 1242 | --- |
| Sulfur | ppm | ASTM D5185m | | 3078 | 3569 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.4 | 14.6 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 9.0 | 8.2 | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 14.1 | 13.9 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0079181 **Received** : 08 Jul 2024
Lab Number : 06229693 **Tested** : 09 Jul 2024
Unique Number : 11113186 **Diagnosed** : 09 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

BORRGAARD CONSTRUCTION
 70 CREEPER HILL RD
 NORTH GRAFTON, MA
 US 01536
 Contact: BILL PECKAM
 billpeckam@borrgaard.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)

F: (508)839-9625