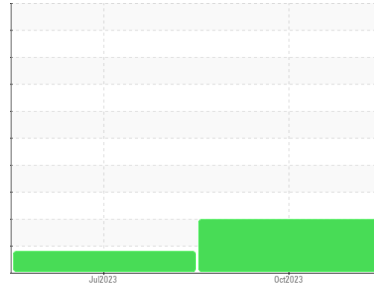




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Machine Id
133
 Component
Hydraulic System
 Fluid
PETRO CANADA 10W (--- GAL)

DIAGNOSIS

Recommendation

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal. Moderate concentration of visible metal present.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info | | WC0868154 | WC0822398 | --- |
| Sample Date | Client Info | | 28 Oct 2023 | 08 Jul 2023 | --- |
| Machine Age | hrs | Client Info | 6638 | 6013 | --- |
| Oil Age | hrs | Client Info | 279 | 314 | --- |
| Oil Changed | Client Info | | Not Chngd | Changed | --- |
| Sample Status | | | ABNORMAL | ABNORMAL | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | ▲ 30 | ▲ 40 | --- |
| Chromium | ppm | ASTM D5185m >10 | 0 | <1 | --- |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >10 | 3 | 5 | --- |
| Lead | ppm | ASTM D5185m >10 | 0 | <1 | --- |
| Copper | ppm | ASTM D5185m >75 | 13 | 17 | --- |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | 30 | 30 | --- |
| Barium | ppm | ASTM D5185m | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 1 | --- |
| Manganese | ppm | ASTM D5185m | 0 | <1 | --- |
| Magnesium | ppm | ASTM D5185m | 44 | 59 | --- |
| Calcium | ppm | ASTM D5185m | 1234 | 1420 | --- |
| Phosphorus | ppm | ASTM D5185m | 630 | 898 | --- |
| Zinc | ppm | ASTM D5185m | 816 | 1113 | --- |
| Sulfur | ppm | ASTM D5185m | 2015 | 2882 | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 7 | 10 | --- |
| Sodium | ppm | ASTM D5185m | 2 | 1 | --- |
| Potassium | ppm | ASTM D5185m >20 | 0 | 3 | --- |

VISUAL

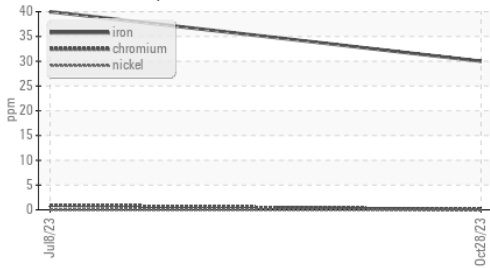
| | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|----------------|----------|----------|
| White Metal | scalar | *Visual NONE | ▲ MODER | NONE | --- |
| Yellow Metal | scalar | *Visual NONE | NONE | NONE | --- |
| Precipitate | scalar | *Visual NONE | 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 >0.1 | NEG | NEG | --- |
| Free Water | scalar | *Visual | NEG | NEG | --- |

FLUID PROPERTIES

| | method | limit/base | current | history1 | history2 |
|-------------|--------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 44.2 | 44.3 | --- |

OIL ANALYSIS REPORT

▲ Ferrous Alloys



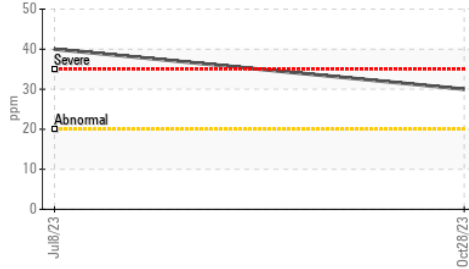
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|----------|----------|----------|
| Color | | | no image | no image | no image |
| Bottom | | | no image | no image | no image |

GRAPHS

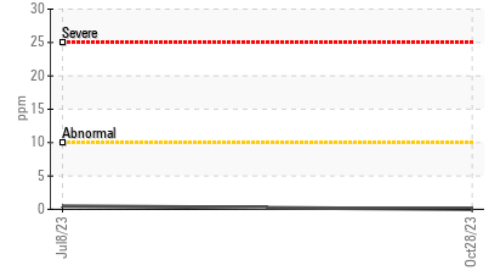
Viscosity @ 40°C



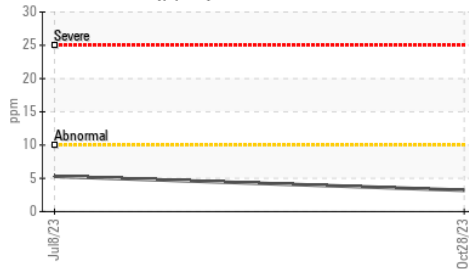
▲ Iron (ppm)



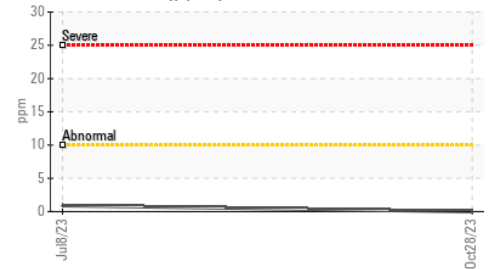
Lead (ppm)



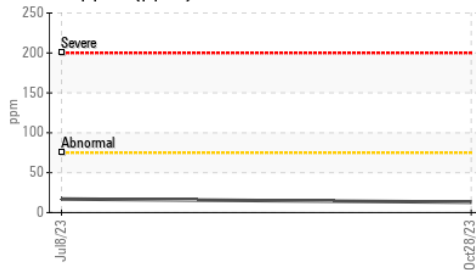
Aluminum (ppm)



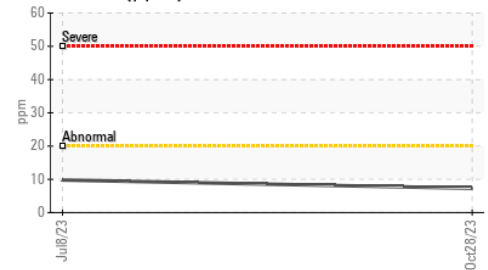
Chromium (ppm)



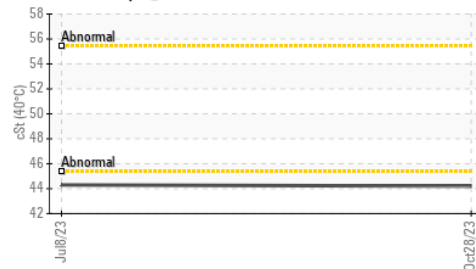
Copper (ppm)



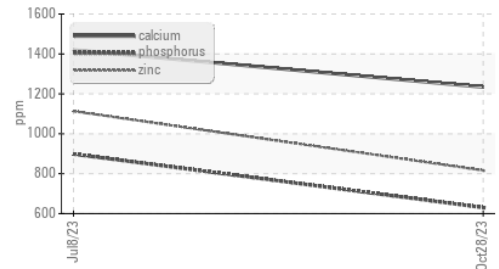
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0868154 **Received** : 02 Nov 2023
Lab Number : 05997556 **Diagnosed** : 05 Nov 2023
Unique Number : 10725916 **Diagnostician** : Don Baldrige
Test Package : MOB 1

C.L. BENTON & SONS INC
 706 38TH AVE N
 MYRTLE BEACH, SC
 US 29577
 Contact: NEIL
 neil@clbenton.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)

T:
F: