WEAR CONTAMINATION **FLUID CONDITION**

UOM

ppm

ppm

ppm

ppm

ppm

ppm

ppm

scalar

Method

Test

Titanium

Aluminum

Silver

Lead

Tin

Copper

Vanadium

White Metal

NORMAL NORMAL ABNORMAL

History2

History1



Machine Id CATERPILLAR 219-1501 Right Final Drive

GEAR OIL ISO 220 (--- GAL)

| DE | \sim | MENID | | |
|----|-------------|-------|-----------------------|--|
| RE | C _C) \/ | | Δ III Ω | |

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

| | | | | | , |) |
|----------------|-----|---------------|------|-------------|---|---|
| Sample Number | | Client Info | | PC0088643 | | |
| Sample Date | | Client Info | | 28 Mar 2024 | | |
| Machine Age | hrs | Client Info | | 3709 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Filter Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Filter Changed | | Client Info | | N/A | | |
| Sample Status | | | | ABNORMAL | | |
| | | | | | | |
| Iron | ppm | ASTM D5185(m) | >800 | 75 | | |
| Chromium | ppm | ASTM D5185(m) | >10 | 1 | | |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | | |

ASTM D5185(m) >15

ASTM D5185(m) >75

ASTM D5185(m) >75

>10

NONE

ASTM D5185(m)

ASTM D5185(m)

ASTM D5185(m)

ASTM D5185(m)

Visual*

Limit/Abn Current

0

0

<1

NONE

0 0

WEAR

All component wear rates are normal.

CONTAMINATION

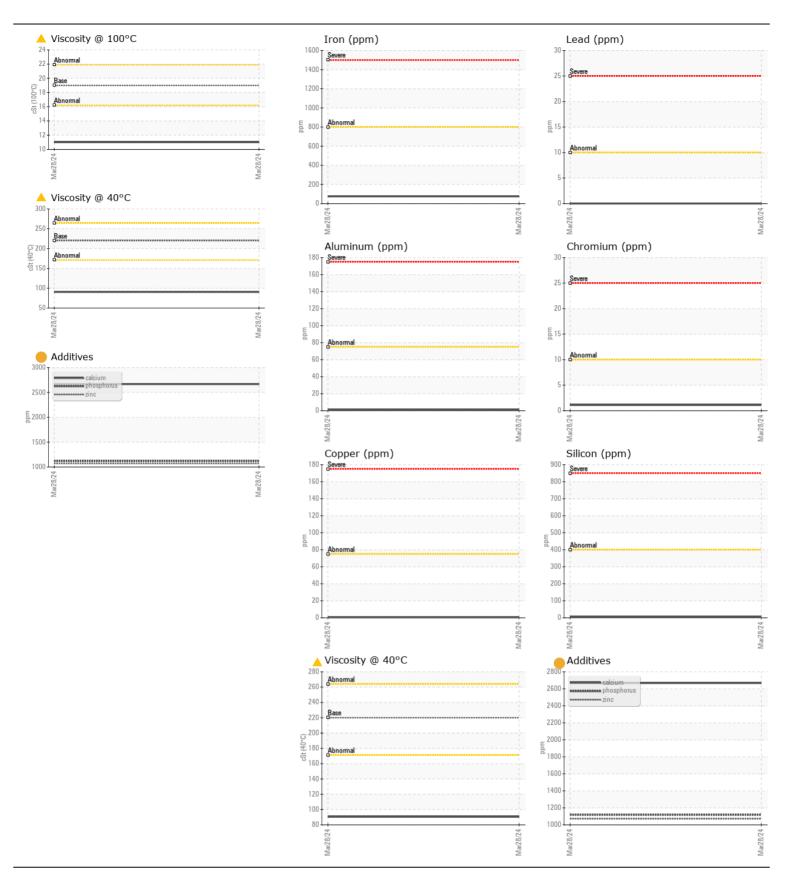
There is no indication of any contamination in the oil.

| Yellow Metal | scalar | Visual* | NONE | NONE | |
|------------------|--------|---------------|-------|-------|------|
| | | | | | |
| Silicon | ppm | ASTM D5185(m) | >400 | 5 | |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | |
| Water | | WC Method | >0.2 | NEG | |
| Silt | scalar | Visual* | NONE | VLITE | |
| Debris | scalar | Visual* | NONE | VLITE | |
| Sand/Dirt | scalar | Visual* | NONE | NONE | |
| Appearance | scalar | Visual* | NORML | NORML | |
| Odor | scalar | Visual* | NORML | NORML | |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | |
| | | | | | |

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

| | Emulsified Water | scalar | Visual* | >0.2 | NEG | | |
|--------------------------------|----------------------|--------|---------------|-------|---------------|------------|--|
| | Sodium | ppm | ASTM D5185(m) | | 1 | | |
| | Boron | ppm | ASTM D5185(m) | 50 | 88 | | |
| | Barium | ppm | ASTM D5185(m) | 15 | 0 | | |
| | Molybdenum | ppm | ASTM D5185(m) | 15 | <1 | | |
| | Manganese | ppm | ASTM D5185(m) | | <1 | | |
| | Magnesium | ppm | ASTM D5185(m) | 50 | 32 | | |
| | Calcium | ppm | ASTM D5185(m) | 50 | 2667 | | |
| | Phosphorus | ppm | ASTM D5185(m) | 350 | <u> </u> | | |
| | Zinc | ppm | ASTM D5185(m) | 100 | 1072 | | |
| | Sulfur | ppm | ASTM D5185(m) | 12500 | 11228 | | |
| | Visc @ 40°C | cSt | ASTM D7279(m) | 220 | 4 90.5 | | |
| | Visc @ 100°C | cSt | ASTM D7279(m) | 19.0 | <u> </u> | | |
| | Viscosity Index (VI) | Scale | ASTM D2270* | 96 | 106 | | |
| Contact/Location: Doug Francis | | | | | | s - LAVCLI | |





ISO 17025:2017
Accredited
Laboratory

Laboratory: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Sample No.**: PC0088643 **Received**: 19 Apr 2024

 17025:2017
 Lab Number
 : 02630311
 Tested
 : 22 Apr 2024

 scredited
 Unique Number
 : 5763443
 Diagnosed
 : 22 Apr 2024 - Kevin Marson

Test Package: MOB 1 (Additional Tests: KV100, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

LAVIS CONTRACTING 37462A HURON ROAD CLINTON, ON CA N0M 1L0 Contact: Doug Francis

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