

OIL ANALYSIS REPORT

Sample Rating Trend





MINING ME-15 CATERPILLAR 980G MK700428 Component Rear Left Final Drive

Fluid SHELL Spirax S4 CX 30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Area

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

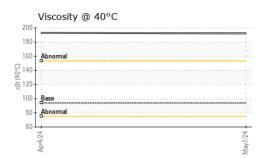
Fluid Condition

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

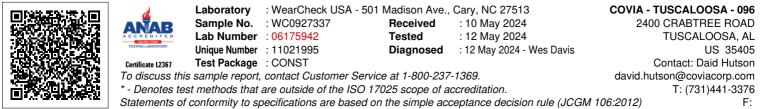
| SAMPLE INFORM | 1ATION | method | limit/base | current | history1 | history2 |
|-------------------------------|--------|-------------|------------|-------------|------------------|---------------------|
| Sample Number | | Client Info | | WC0927337 | WC0927331 | |
| Sample Date | | Client Info | | 07 May 2024 | 04 Apr 2024 | |
| Machine Age | hrs | Client Info | | 9245 | 8774 | |
| Oil Age | hrs | Client Info | | 9245 | 0 | |
| Oil Changed | | Client Info | | N/A | N/A | |
| Sample Status | | | | NORMAL | NORMAL | |
| CONTAMINATION | J | method | limit/base | current | history1 | history2 |
| Water | | WC Method | | NEG | NEG | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >800 | 13 | 11 | |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 1 | |
| Nickel | ppm | ASTM D5185m | >5 | 0 | <1 | |
| Titanium | ppm | ASTM D5185m | >15 | 0 | <1 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >75 | <1 | 2 | |
| Lead | ppm | ASTM D5185m | >10 | <1 | <1 | |
| Copper | ppm | ASTM D5185m | >75 | <1 | 3 | |
| Tin | ppm | ASTM D5185m | >8 | 0 | <1 | |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 2 | 0 | |
| Barium | ppm | ASTM D5185m | | 0 | <1 | |
| Molybdenum | ppm | ASTM D5185m | | <1 | 2 | |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | |
| Magnesium | ppm | ASTM D5185m | | 27 | 24 | |
| Calcium | ppm | ASTM D5185m | | 3224 | 3133 | |
| Phosphorus | ppm | ASTM D5185m | | 1127 | 1156 | |
| Zinc | ppm | ASTM D5185m | | 1249 | 1287 | |
| Sulfur | ppm | ASTM D5185m | | 8711 | 9062 | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >400 | 9 | 10 | |
| Sodium | ppm | ASTM D5185m | | <1 | <1 | |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 3 | |
| VISUAL | | method | limit/base | current | history1 | history2 |
| White Metal | scalar | *Visual | NONE | NONE | 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 | >0.2 | NEG | NEG | |
| Free Water 4:51:32) Rev: 1 | scalar | *Visual | | NEG | NEG Submitted | By: Daid Hutson |



OIL ANALYSIS REPORT



| Visc @ 40°C | cSt | ASTM D445 | 93.9 | 192 | 193 | |
|------------------|-----|-----------|------------|----------|----------|----------|
| SAMPLE IMAGE | S | method | limit/base | current | history1 | history2 |
| Color | | | | no image | no image | no image |
| Bottom | | | - | no image | no image | no image |
| GRAPHS | | | | | | |
| Ferrous Alloys | | | | | | |
| iron | | | | | | |
| 2 - chromium | | | | | | |
| 0- | | | | | | |
| 3 + | | | | | | |
| 5 - | | | | | | |
| 1 | | | | | | |
| 2- | | | | | | |
| 54 12 | | | 724 | | | |
| Apr4/24 | | | May7/24 | | | |
| Non-ferrous Meta | als | | | | | |
| copper | | | | | | |
| 8 tin | | | | | | |
| 7- | | | | | | |
| 5- | | | | | | |
| 4 | | | | | | |
| 2 | | | | | | |
| 1 | | | | | | |
| Apr4/24 | | | May7/24 | | | |
| | | | May | | | |
| Viscosity @ 40°C | ; | | | | | |
| 0+ | | | | | | |
| | | | | | | |
| d. | | | | | | |
|) - | | | | | | |
| | | | | | | |
| Base | | | | | | |
| D- Abnormal | | | | | | |
| | | | 24 | | | |
| Apr4/24 | | | May7/24 | | | |
| H | | | 2 | | | |



Submitted By: Daid Hutson Page 2 of 2