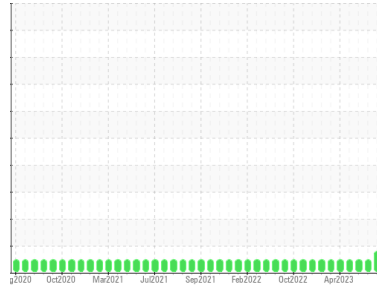




PROBLEM SUMMARY

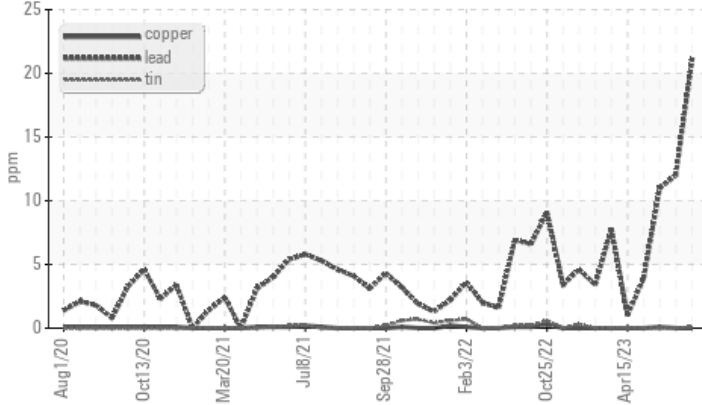
Area
AAAB IRAQ
 Machine Id
2000-4080
 Component
Genset
 Fluid
VALVOLINE PREMIUM BLUE (380 LTR)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
|---------------|-----|-------------|-----|----------|--------|--------|
| Lead | ppm | ASTM D5185m | >10 | ▲ 21 | 12 | 11 |

Customer Id: CUMSHO
 Sample No.: WC0728921
 Lab Number: 05924136
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|------|---------|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |

HISTORICAL DIAGNOSIS

04 Jul 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



12 Jun 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



14 May 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report





OIL ANALYSIS REPORT

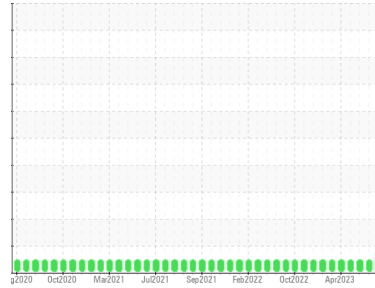
Sample Rating Trend

WEAR



Area
AAAB IRAQ
Machine Id
2000-4080

Component
Genset
Fluid
VALVOLINE PREMIUM BLUE (380 LTR)



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

The lead level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0728921 | WC0728945 | WC0728866 |
| Sample Date | Client Info | | 30 Jul 2023 | 04 Jul 2023 | 12 Jun 2023 |
| Machine Age | hrs | Client Info | 19633 | 19309 | 19059 |
| Oil Age | hrs | Client Info | 324 | 250 | 250 |
| Oil Changed | Client Info | | Changed | Changed | Changed |
| Sample Status | | | ABNORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| Glycol | WC Method | | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 | |
|----------|--------|-------------|---------|--------------|----------|----|
| Iron | ppm | ASTM D5185m | >25 | 8 | 5 | 4 |
| Chromium | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | 1 | <1 |
| Lead | ppm | ASTM D5185m | >10 | ▲ 21 | 12 | 11 |
| Copper | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >5 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | <1 | <1 |

ADDITIVES

| | method | limit/base | current | history1 | history2 | |
|------------|--------|-------------|---------|--------------|----------|------|
| Boron | ppm | ASTM D5185m | 2.9 | 42 | 58 | 96 |
| Barium | ppm | ASTM D5185m | 0.1 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | 23 | 33 | 48 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 18 | 17 | 17 | 15 |
| Calcium | ppm | ASTM D5185m | 2936 | 3705 | 3748 | 4762 |
| Phosphorus | ppm | ASTM D5185m | 998 | 924 | 917 | 1170 |
| Zinc | ppm | ASTM D5185m | 1095 | 1109 | 1111 | 1365 |
| Sulfur | ppm | ASTM D5185m | 5469 | 4637 | 4682 | 5396 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|-------------|---------|-----------|----------|---|
| Silicon | ppm | ASTM D5185m | >25 | 12 | 6 | 8 |
| Sodium | ppm | ASTM D5185m | | 1 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | <1 | 1 |

INFRA-RED

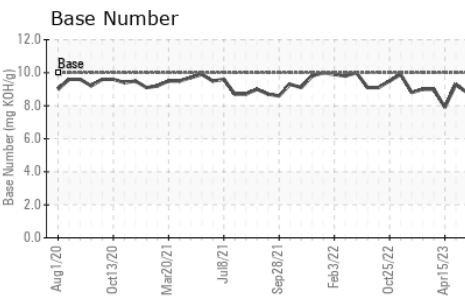
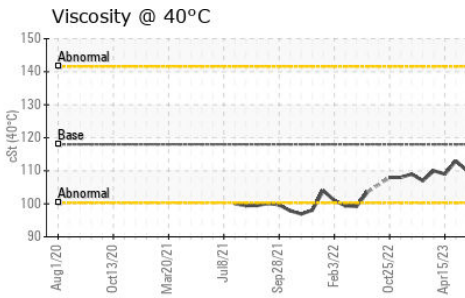
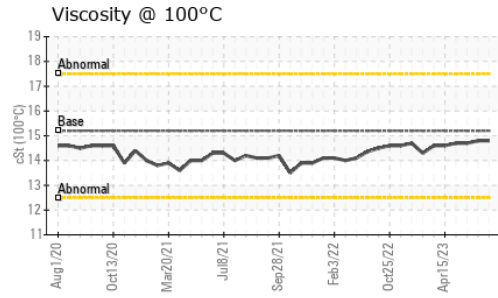
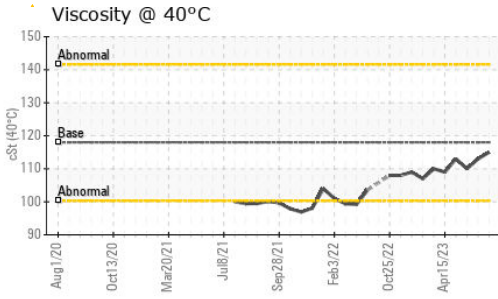
| | method | limit/base | current | history1 | history2 | |
|-----------|----------|-------------|---------|-------------|----------|------|
| Soot % | % | *ASTM D7844 | | 0.2 | 0.2 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.0 | 9.0 | 8.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.7 | 18.8 | 18.4 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 | |
|------------------|----------|-------------|---------|-------------|----------|------|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.5 | 14.2 | 13.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.0 | 8.2 | 8.6 | 8.8 |



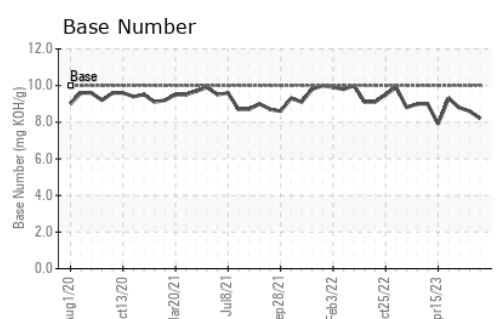
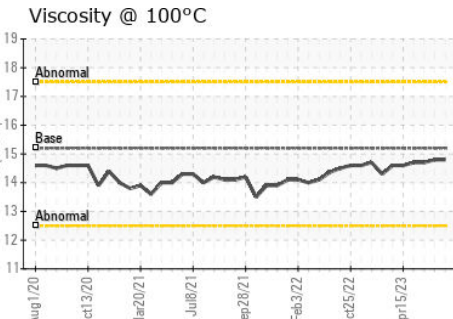
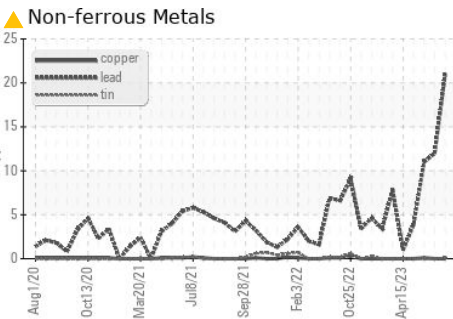
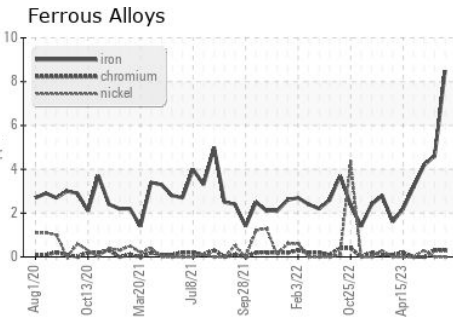
OIL ANALYSIS REPORT



| 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 | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 118 | 115 | 113 |
| Visc @ 100°C | cSt | ASTM D445 | 15.2 | 14.8 | 14.7 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 134 | 132 | 135 |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0728921
 Lab Number : 05924136
 Unique Number : 10604083
 Test Package : FLEET (Additional Tests: KV40, VI)

CUMMINS - PRIME POWER & IPP STRATEGIC ACCOUNTS
 3850 N VICTORIA ST
 SHOREVIEW, MN
 US 55126
 Contact: Harsha Padigae
 hpadigae@louisberger.com
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 F: x:

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)