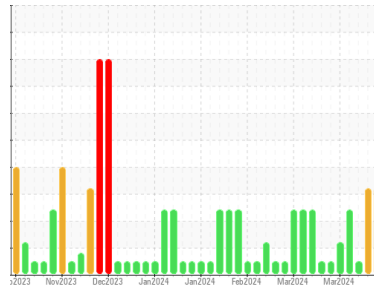




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
WVTM02BE
 Component
Biogas Engine
 Fluid
MOBIL Pegasus™ 605 Ultra 40 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

The BN level is low. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0895543 | WC0895540 | WC0895538 |
| Sample Date | Client Info | | 22 Apr 2024 | 19 Apr 2024 | 15 Apr 2024 |
| Machine Age | hrs | Client Info | 45216 | 45143 | 45047 |
| Oil Age | hrs | Client Info | 284 | 211 | 115 |
| Oil Changed | Client Info | | Not Chngd | Not Chngd | Not Chngd |
| Sample Status | | | SEVERE | SEVERE | NORMAL |

CONTAMINATION

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

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >14 | 2 | 0 | <1 |
| Chromium | ppm | ASTM D5185m >3 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >5 | 3 | 1 | 2 |
| Lead | ppm | ASTM D5185m >8 | 2 | 0 | 0 |
| Copper | ppm | ASTM D5185m >5 | <1 | 0 | <1 |
| Tin | ppm | ASTM D5185m >3 | 2 | 2 | 1 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 21 | 6 | <1 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 2 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 11 | 8 | 11 |
| Calcium | ppm | ASTM D5185m | 1740 | 1733 | 1636 |
| Phosphorus | ppm | ASTM D5185m | 312 | 273 | 277 |
| Zinc | ppm | ASTM D5185m | 368 | 316 | 308 |
| Sulfur | ppm | ASTM D5185m | 4377 | 3888 | 3396 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m >180 | 85 | 64 | 41 |
| Sodium | ppm | ASTM D5185m >20 | 1 | <1 | 2 |
| Potassium | ppm | ASTM D5185m >20 | 2 | <1 | 2 |

INFRA-RED

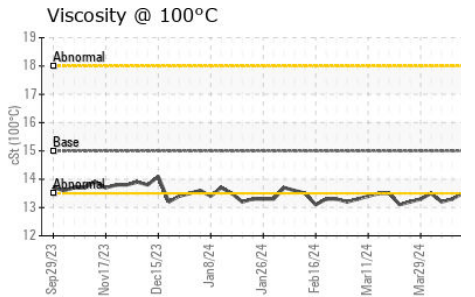
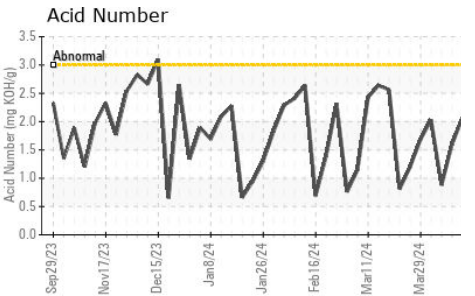
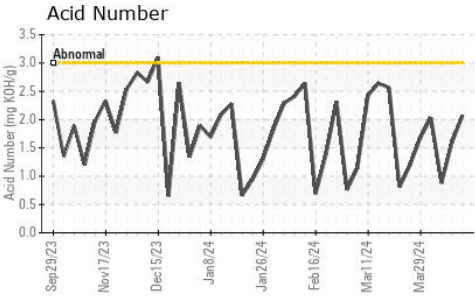
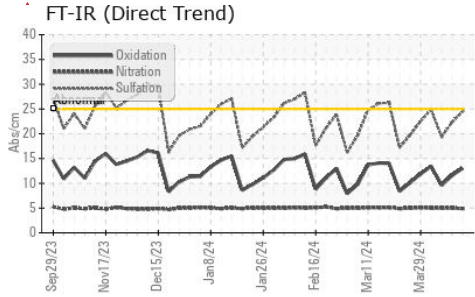
| | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | 0 | 0 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | 4.9 | 5.0 | 5.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | 24.5 | 22.3 | 19.4 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|----------------|---------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 | 13.0 | 11.6 | 9.6 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 2.07 | 1.60 | 0.88 |
| Base Number (BN) | mg KOH/g | ASTM D2896 5.7 | ▲ 1.94 | ▲ 2.32 | 2.97 |



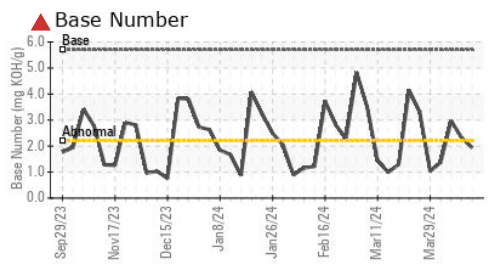
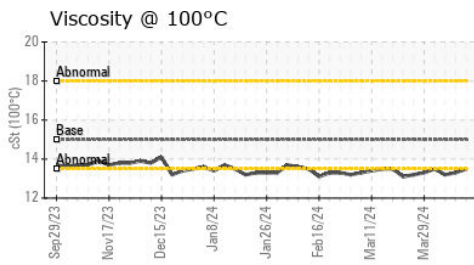
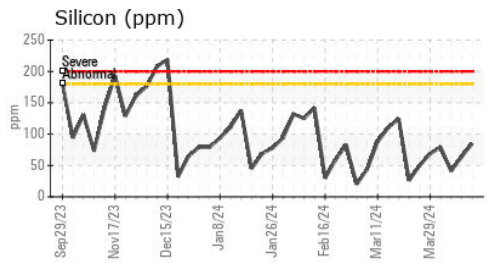
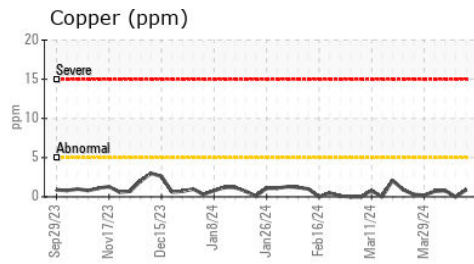
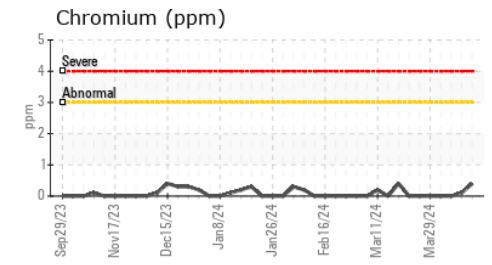
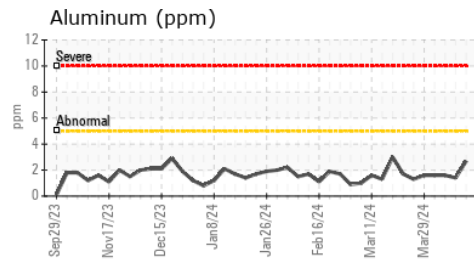
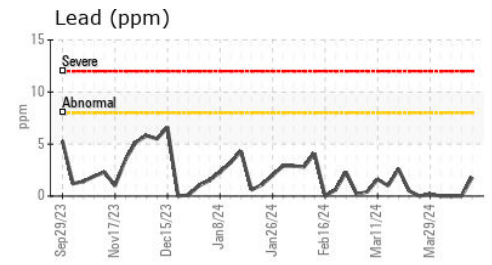
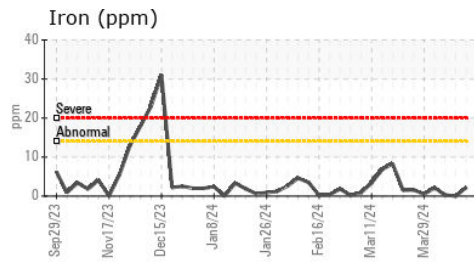
OIL ANALYSIS REPORT



| PARAMETER | 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 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 15 | 13.5 | 13.3 | 13.2 |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0895543
Lab Number : 06159302
Unique Number : 10994725
Test Package : MOB 2
Received : 24 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 26 Apr 2024 - Don Baldrige

EDL NA Recips-Watervliet
 Watervliet Powerstation, 3563 Hennessey Road
 Watervliet, MI
 US 49098
 Contact: Scott Eastman
 scott.eastman@edlenergy.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)