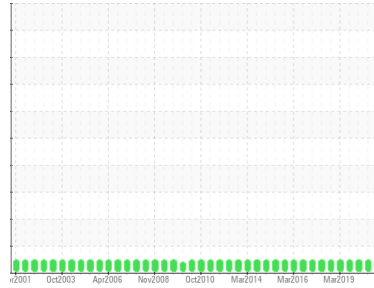




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[202944]
 Machine Id
WBK G EXBR
 Component
Genset
 Fluid
ESSO TERESSO ISO 68 (18 LTR)

DIAGNOSIS

- Recommendation**
 Resample at the next service interval to monitor.
- Wear**
 All 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 | | WC0328095 | WC0299298 | WC0299297 |
| Sample Date | Client Info | | 11 Oct 2023 | 05 Mar 2020 | 22 Oct 2019 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | Not Chngd | N/A | N/A |
| Sample Status | | | NORMAL | 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 |
|-----------|-------------|-------------------|--------------|----------|----------|
| PQ | ASTM D8184* | | 0 | 8 | --- |
| Iron | ppm | ASTM D5185(m) >50 | <1 | <1 | <1 |
| Chromium | ppm | ASTM D5185(m) >4 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) >5 | <1 | <1 | <1 |
| Aluminum | ppm | ASTM D5185(m) >12 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) >17 | 2 | 2 | 2 |
| Copper | ppm | ASTM D5185(m) >70 | <1 | 1 | <1 |
| Tin | ppm | ASTM D5185(m) >15 | 2 | 2 | 2 |
| Antimony | ppm | ASTM D5185(m) | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | 0 | <1 | <1 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|--------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) 4.5 | <1 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) 0.4 | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) 0 | 0 | <1 | 1 |
| Calcium | ppm | ASTM D5185(m) 0 | <1 | <1 | 1 |
| Phosphorus | ppm | ASTM D5185(m) 0.7 | 2 | <1 | <1 |
| Zinc | ppm | ASTM D5185(m) 0 | 2 | 2 | 2 |
| Sulfur | ppm | ASTM D5185(m) 1315 | 2408 | 2565 | 2446 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

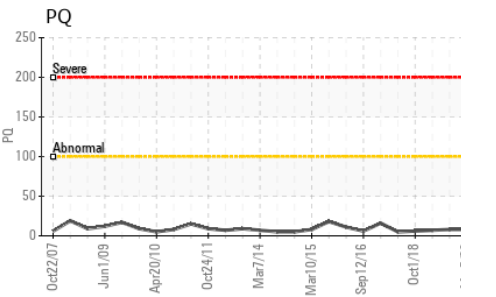
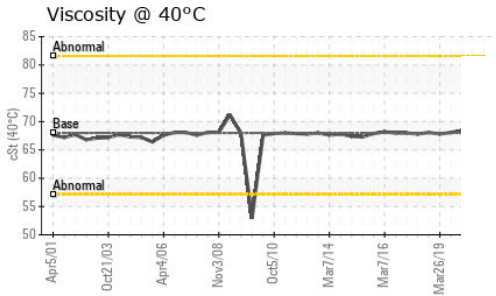
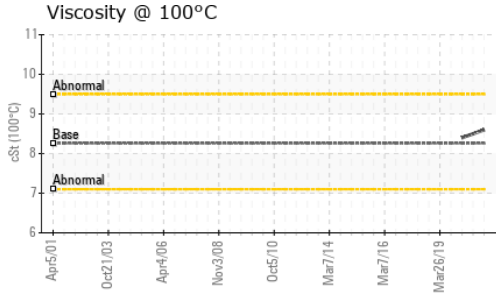
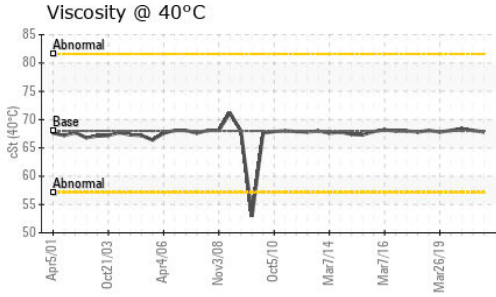
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >25 | 0 | 0 | 0 |
| Sodium | ppm | ASTM D5185(m) | <1 | 0 | 0 |
| Potassium | ppm | ASTM D5185(m) >20 | 0 | <1 | <1 |

INFRA-RED

| | method | limit/base | current | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot % | % | ASTM D7844* | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* >20 | 2.8 | 4.0 | 3.6 |
| Sulfation | Abs./1mm | ASTM D7415* >30 | 12.9 | 17.8 | 16.0 |



OIL ANALYSIS REPORT

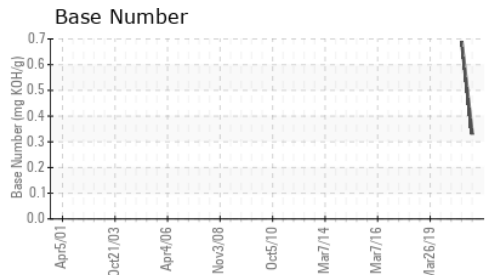
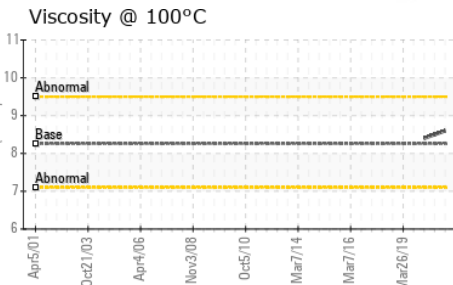
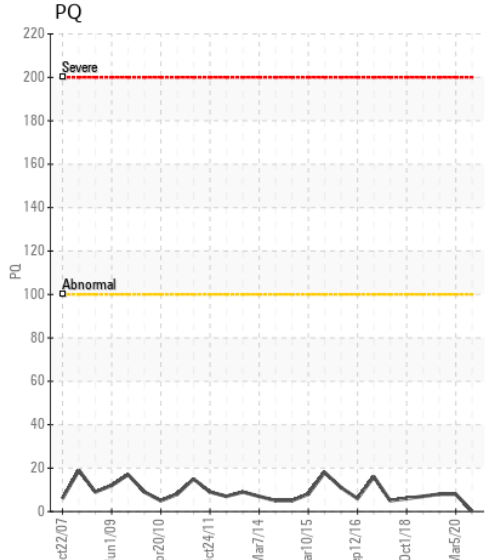
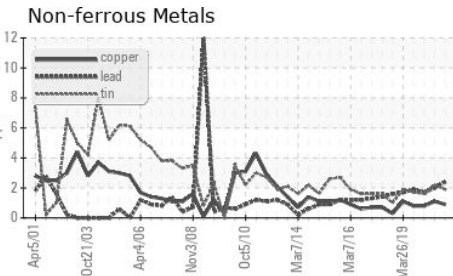
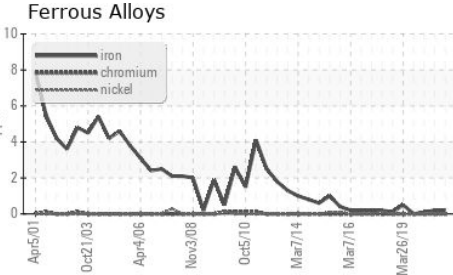


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs./1mm | ASTM D7414* | >25 | 4.5 | 4.5 | 4.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896* | | 0.33 | 0.69 | --- |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | VLITE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------|-------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 68 | 67.8 | 68.1 | 68.4 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 8.26 | 8.6 | 8.5 | 8.4 |
| Viscosity Index (VI) | Scale | ASTM D2270* | | 97 | 94 | 90 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0328095 **Received** : 27 Oct 2023
Lab Number : **02592409** **Diagnosed** : 30 Oct 2023
Unique Number : 5669488 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KV40, PQ, VI)

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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.