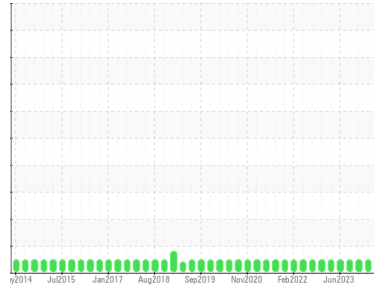




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
SAB2
 Machine Id
SAB2 G15 Governor
 Component
Hydraulic System
 Fluid
ESSO TERESSO ISO 46 (6160 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Component wear rates appear to be normal (unconfirmed).

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | WC0890838 | WC0801577 | WC0858070 |
| Sample Date | Client Info | 27 Mar 2024 | 07 Jan 2024 | 25 Oct 2023 |
| Machine Age | hrs | 0 | 0 | 0 |
| Oil Age | hrs | 0 | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|-----------------|------------|----------|----------|
| Water | WC Method >0.05 | NEG | NEG | NEG |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185(m) >20 | <1 | <1 | <1 |
| Chromium | ppm ASTM D5185(m) >20 | 0 | 0 | 0 |
| Nickel | ppm ASTM D5185(m) >20 | 0 | <1 | <1 |
| Titanium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Aluminum | ppm ASTM D5185(m) >20 | 0 | <1 | 0 |
| Lead | ppm ASTM D5185(m) >20 | 0 | <1 | <1 |
| Copper | ppm ASTM D5185(m) >20 | 0 | <1 | <1 |
| Tin | ppm ASTM D5185(m) >20 | 0 | 0 | 0 |
| Antimony | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Vanadium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm ASTM D5185(m) | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|-----------------------|--------------|----------|----------|
| Boron | ppm ASTM D5185(m) 0 | <1 | 0 | <1 |
| Barium | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Molybdenum | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Manganese | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Magnesium | ppm ASTM D5185(m) 0 | <1 | 0 | 0 |
| Calcium | ppm ASTM D5185(m) 0 | 0 | 0 | <1 |
| Phosphorus | ppm ASTM D5185(m) 2.4 | 2 | 1 | 3 |
| Zinc | ppm ASTM D5185(m) 0 | 1 | <1 | <1 |
| Sulfur | ppm ASTM D5185(m) | 1247 | 1331 | 1255 |
| Lithium | ppm ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

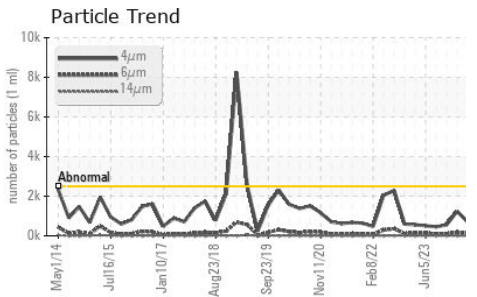
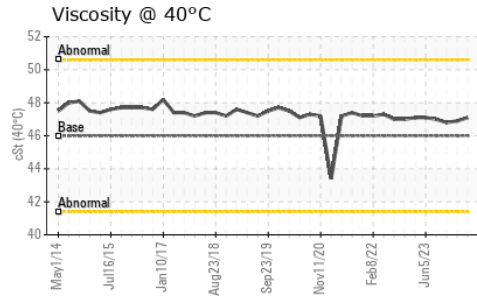
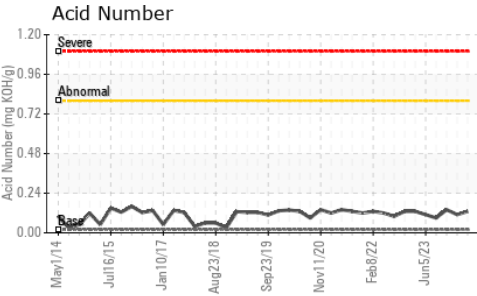
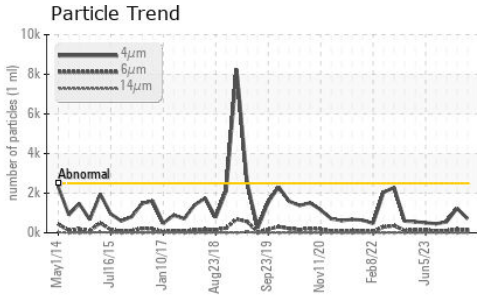
| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185(m) >15 | 0 | 0 | 0 |
| Sodium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Potassium | ppm ASTM D5185(m) >20 | <1 | <1 | 0 |

FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 >2500 | 708 | 1233 | 559 |
| Particles >6µm | ASTM D7647 >640 | 152 | 181 | 113 |
| Particles >14µm | ASTM D7647 >160 | 8 | 9 | 4 |
| Particles >21µm | ASTM D7647 >40 | 3 | 3 | 2 |
| Particles >38µm | ASTM D7647 >10 | 1 | 0 | 0 |
| Particles >71µm | ASTM D7647 >3 | 1 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) >18/16/14 | 17/14/10 | 17/15/10 | 16/14/9 |



OIL ANALYSIS REPORT

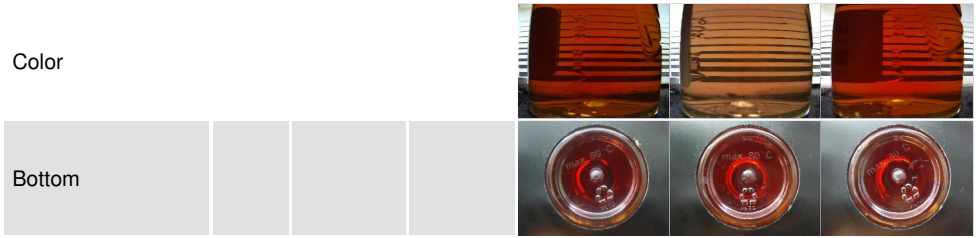


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.02 | 0.13 | 0.11 | 0.14 |

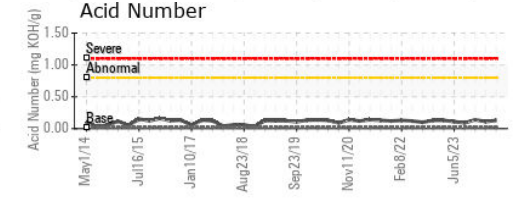
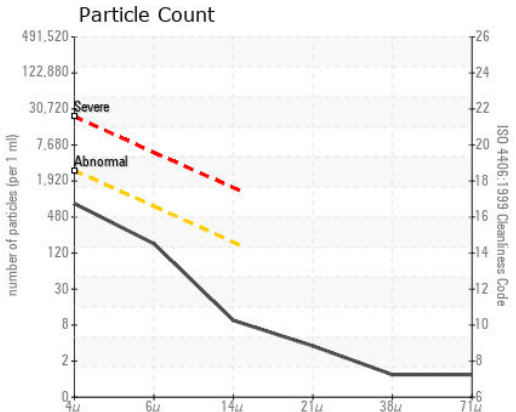
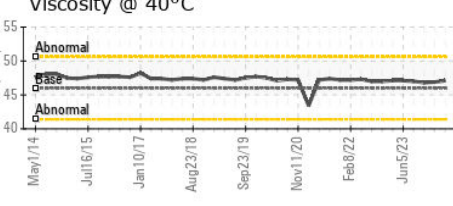
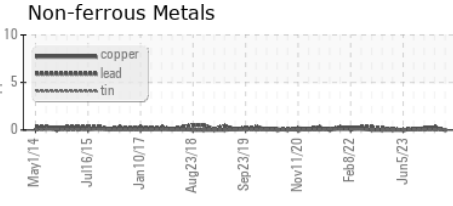
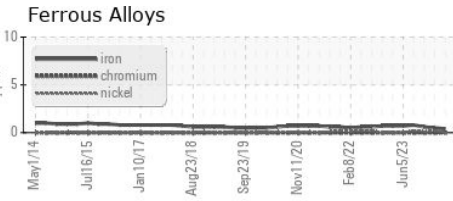
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | 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* | >0.05 | 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) | 46 | 47.1 | 46.9 | 46.8 |

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0890838 **Received** : 28 Mar 2024
Lab Number : **02625209** **Tested** : 01 Apr 2024
Unique Number : 5750328 **Diagnosed** : 01 Apr 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

Ontario Power Generation
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 Contact: Alex Courtemanche
 alex.courtemanche@opg.com
 T: (905)357-0322
 F: (905)357-6558

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.