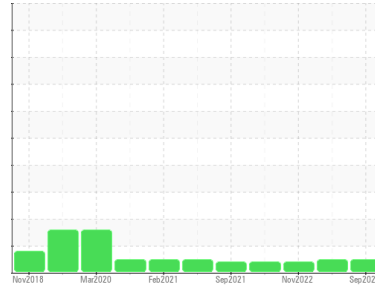




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Propulsion
 Machine Id
PS GB (S/N 50039844)
 Component
Port Gearbox
 Fluid
SHELL ROTELLA T4 15W40 (31 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

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-----------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC | WC | WC |
| Sample Date | Client Info | | 25 Sep 2023 | 16 May 2023 | 07 Nov 2022 |
| Machine Age | hrs Client Info | | 0 | 0 | 0 |
| Oil Age | hrs Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | NORMAL | NORMAL | ABNORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|-------------------|------------|--------------|----------|----------|
| Iron | ppm ASTM D5185(m) | >300 | 6 | 4 | 6 |
| Chromium | ppm ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Nickel | ppm ASTM D5185(m) | >30 | <1 | <1 | <1 |
| Titanium | ppm ASTM D5185(m) | | 0 | <1 | <1 |
| Silver | ppm ASTM D5185(m) | | <1 | 0 | 0 |
| Aluminum | ppm ASTM D5185(m) | >30 | 2 | 2 | 3 |
| Lead | ppm ASTM D5185(m) | >1500 | 5 | 3 | 4 |
| Copper | ppm ASTM D5185(m) | >250 | 54 | 32 | 43 |
| Tin | ppm ASTM D5185(m) | >50 | 3 | 2 | 3 |
| Antimony | ppm ASTM D5185(m) | >5 | 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) | | 194 | 198 | 197 |
| Barium | ppm ASTM D5185(m) | | <1 | 0 | 0 |
| Molybdenum | ppm ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm ASTM D5185(m) | | 0 | 0 | <1 |
| Magnesium | ppm ASTM D5185(m) | | 11 | 11 | 12 |
| Calcium | ppm ASTM D5185(m) | | 2266 | 2260 | 2211 |
| Phosphorus | ppm ASTM D5185(m) | | 1033 | 1097 | 1093 |
| Zinc | ppm ASTM D5185(m) | | 1165 | 1130 | 1109 |
| Sulfur | ppm ASTM D5185(m) | | 3174 | 3306 | 3338 |
| Lithium | ppm ASTM D5185(m) | | <1 | <1 | <1 |

CONTAMINANTS

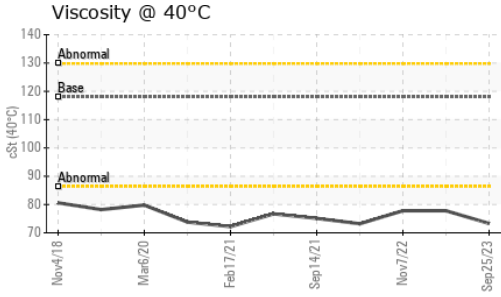
| | method | limit/base | current | history1 | history2 |
|-----------|-------------------|------------|----------|----------|----------|
| Silicon | ppm ASTM D5185(m) | >50 | 2 | 3 | 3 |
| Sodium | ppm ASTM D5185(m) | | 3 | 3 | 2 |
| Potassium | ppm ASTM D5185(m) | >20 | 5 | 7 | 7 |

VISUAL

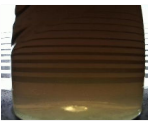
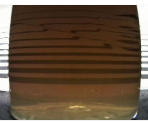
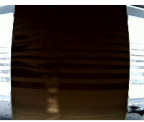



| | method | limit/base | current | history1 | history2 |
|------------------|----------------|------------|--------------|----------|----------|
| White Metal | scalar Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar Visual* | 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* | >0.2 | NEG | NEG | NEG |
| Free Water | scalar Visual* | | NEG | NEG | NEG |



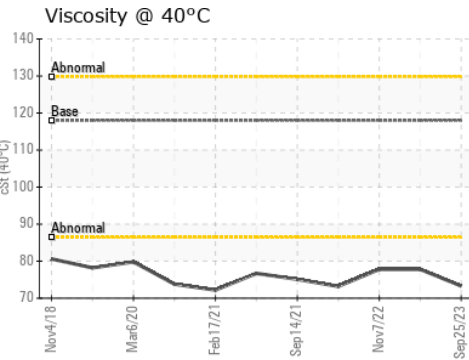
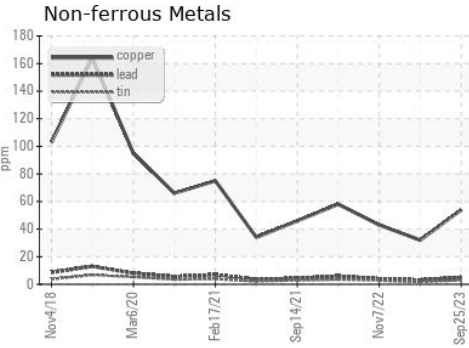
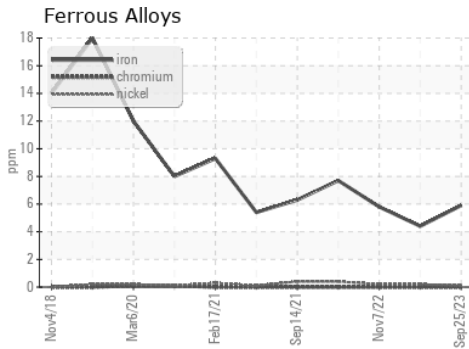
OIL ANALYSIS REPORT



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 118 | 73.3 | 77.8 | ▲ 77.8 |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---|---|---|
| Color | | | |  |  |  |
| Bottom | | | |  |  |  |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02587217
Unique Number : 5656283
Test Package : MAR 1

Canadian Coast Guard
 CCGS Pennant Bay, 72 West Street
 St. John's, NL
 CA A0K 4S0
 Contact: Marc Cull
 pennantbay@ccgs-ngcc.gc.ca
 T: (709)454-2207
 F:

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.