WEAR CONTAMINATION FLUID CONDITION

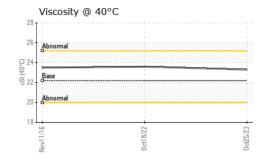
NORMAL NORMAL NORMAL

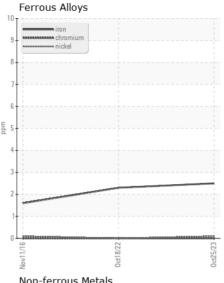
Machine Id

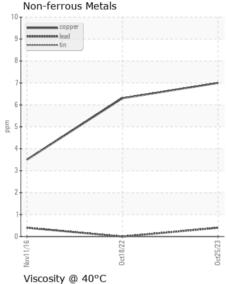
ROSETTE Component

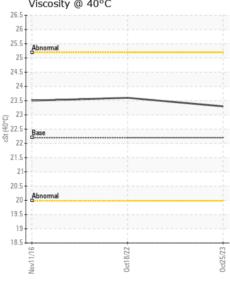
Component Winch

| PETRO CANADA HYDREX MV 22 (240 LTR) | | | | | | | |
|---|------------------|--------|---------------|-----------|--------------|---------------|-------------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry updates. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 2 test kits, this testkit includes AN to determine the suitability of the oil for continued use. | Sample Number | | Client Info | | WC0811229 | WC0627027 | WC |
| | Sample Date | | Client Info | | 25 Oct 2023 | 18 Oct 2022 | 11 Nov 2016 |
| | Machine Age | days | Client Info | | 0 | 0 | 0 |
| | Oil Age | days | Client Info | | 0 | 0 | 0 |
| | Filter Age | days | Client Info | | 0 | 0 | 0 |
| | Oil Changed | | Client Info | | N/A | N/A | N/A |
| | Filter Changed | | Client Info | | N/A | N/A | N/A |
| | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR | Iron | ppm | ASTM D5185(m) | >30 | 2 | 2 | 2 |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| | Nickel | ppm | ASTM D5185(m) | >2 | <1 | 0 | <1 |
| | Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| | Silver | ppm | ASTM D5185(m) | >2 | <1 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185(m) | >5 | 0 | 0 | <1 |
| | Lead | ppm | ASTM D5185(m) | >70 | <1 | 0 | <1 |
| | Copper | ppm | ASTM D5185(m) | >65 | 7 | 6 | 4 |
| | Tin | ppm | ASTM D5185(m) | >9 | 0 | 0 | 0 |
| | Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| | White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| CONTAMINATION | Silicon | ppm | ASTM D5185(m) | >30 | <1 | <1 | <1 |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185(m) | >20 | 0 | <1 | 0 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | 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 |
| FLUID CONDITION | Sodium | ppm | ASTM D5185(m) | | 6 | 11 | 2 |
| The condition of the oil is acceptable for the time in service | Boron | ppm | ASTM D5185(m) | 0 | <1 | <1 | <1 |
| (unconfirmed). | Barium | ppm | ASTM D5185(m) | 0 | <1 | 0 | <1 |
| | Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| | Manganese | ppm | ASTM D5185(m) | 1 | 0 | 0 | 0 |
| | Magnesium | ppm | ASTM D5185(m) | 0 | 3 | 3 | 0 |
| | Calcium | ppm | ASTM D5185(m) | 50 | 49 | 50 | 50 |
| | Phosphorus | ppm | ASTM D5185(m) | 330 | 336 | 379 | 326 |
| | Zinc | ppm | ASTM D5185(m) | 430 | 403 | 402 | 422 |
| | Sulfur | ppm | ASTM D5185(m) | 760 | 983 | 1045 | 1138 |
| | Visc @ 40°C | cSt | ASTM D7279(m) | 22.2 | 23.3 | 23.6 | 23.5 |
| Report Id: AMUNDSEN [WCAMIS] 02593210 (Generated: 05/16/2024 11:23:18) Rev: 2 | | | Cor | ntact/Loc | ation: Chief | Engineer - Al | MUNDSEN |











CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02593210

: WC0811229 Unique Number : 5670289 Test Package : MAR 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested**

Diagnosed

: 01 Nov 2023 : 09 Apr 2024 : 09 Apr 2024 - Kevin Marson

Canadian Coast Guard CCGS Amundsen, 101 Boul. Champlain Quebec, QC

CA G1K 7Y7 Contact: Chief Engineer amundsense@ccgs-ngcc.gc.ca T: (418)953-8233

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.

F: x: