



| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area
STEPHEN P VENABLE
Machine Id
[STEPHEN P VENABLE] 006 590046-6
Component
Starboard Reduction Gear
Fluid
CHEVRON URSA SUPER PLUS 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW0067992 | MW0067971 | MW0067974 |
| Sample Date | | Client Info | | 22 May 2024 | 03 Apr 2024 | 01 Mar 2024 |
| Machine Age | hrs | Client Info | | 130380 | 129703 | 128912 |
| Oil Age | hrs | Client Info | | 1372 | 129703 | 1921 |
| Filter Age | hrs | Client Info | | 1372 | 129703 | 1921 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Filter Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >150 | 29 | 0 | 2 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 4 | <1 | 0 |
| Lead | ppm | ASTM D5185m | >100 | 1 | 0 | 1 |
| Copper | ppm | ASTM D5185m | >50 | 2 | <1 | 2 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

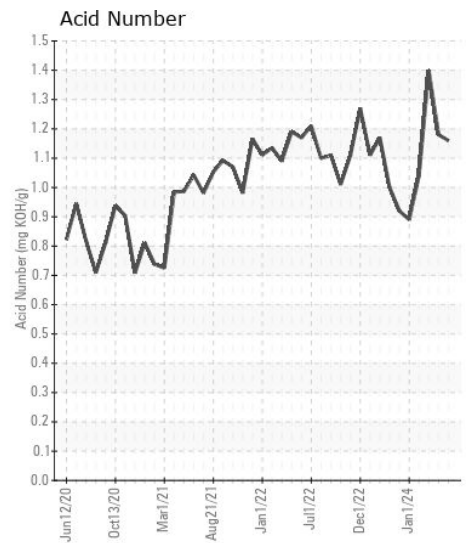
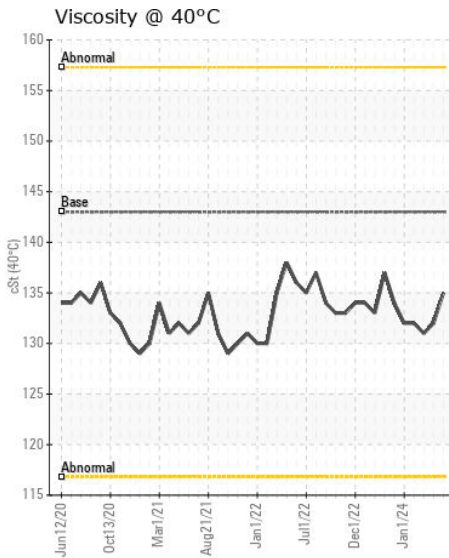
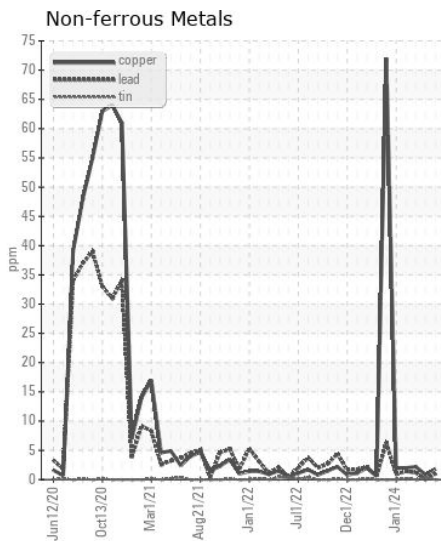
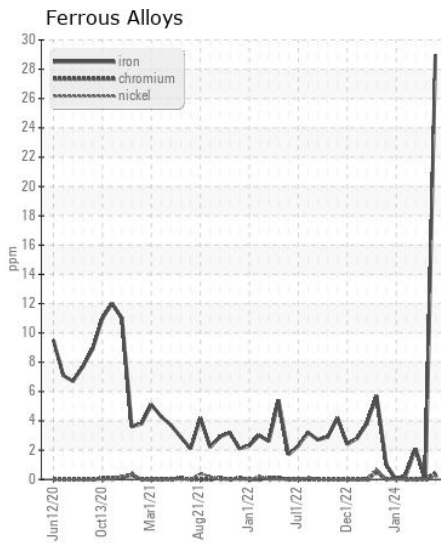
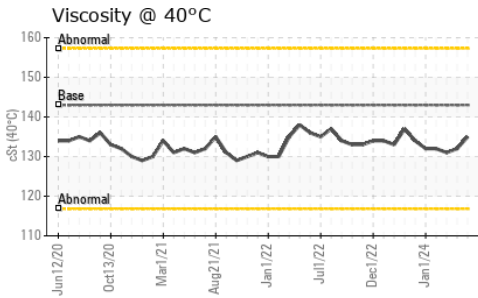
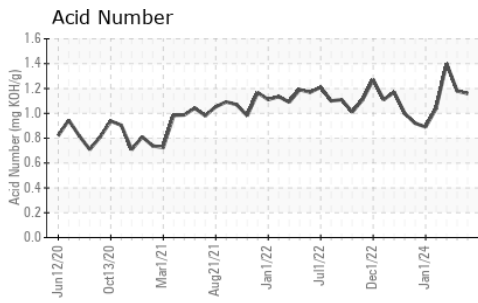
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >50 | 3 | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 0 | <1 |
| Water | | WC Method | >0.1 | 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 2 | 2 | 1 |
| Boron | ppm | ASTM D5185m | | 247 | 311 | 276 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 22 | 29 | 27 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 5 | 10 | 7 |
| Calcium | ppm | ASTM D5185m | | 2012 | 2361 | 2445 |
| Phosphorus | ppm | ASTM D5185m | 1000 | 328 | 698 | 709 |
| Zinc | ppm | ASTM D5185m | 1090 | 601 | 785 | 760 |
| Sulfur | ppm | ASTM D5185m | | 1719 | 2725 | 3285 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.16 | 1.18 | 1.40 |
| Visc @ 40°C | cSt | ASTM D445 | 143 | 135 | 132 | 131 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0067992

Lab Number : 06192951

Unique Number : 11049703

Test Package : MAR 2

Received : 28 May 2024

Tested : 30 May 2024

Diagnosed : 30 May 2024 - Sean Felton

INGRAM BARGE

900 S 3RD ST

PADUCAH, KY

US 42003

Contact: ANTHONY VAN CURA

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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)