



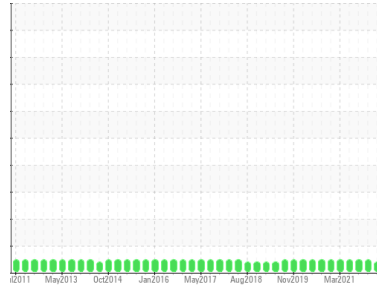
PROBLEM SUMMARY

Sample Rating Trend

VISCOSITY

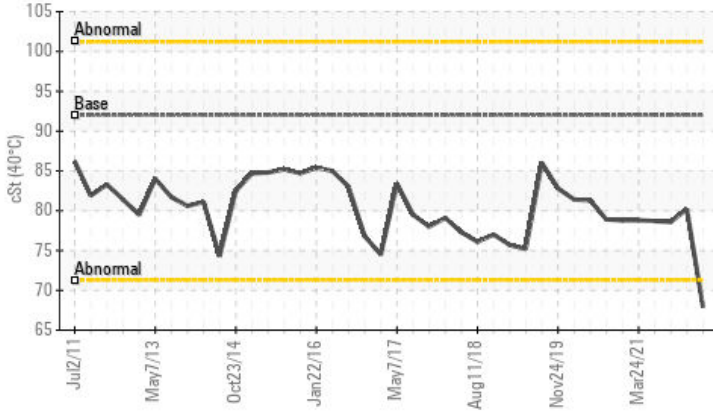


Area
STARBOARD CRANE
 Machine Id
58-GB-7651B STARBOARD CRANE AGGREGATE GEARBOX (S/N Maint Plan 28275)
 Component
Starboard Gearbox
 Fluid
MOBIL MOBILUBE HD PLUS 75W (--- LTR)



COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



RECOMMENDATION

Resample at the next service interval to monitor.
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
|---------------|-----|---------------|----|----------|--------|--------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 92 | ▲ 67.9 | 80.2 | 78.6 |

Customer Id: SPESTJ
 Sample No.: WC0711674
 Lab Number: 02580490
 Test Package: IND 1



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|----------------------|--------|------|---------|--|
| Information Required | --- | --- | ? | NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. |

HISTORICAL DIAGNOSIS

15 May 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



16 Nov 2021 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



29 Jun 2021 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report





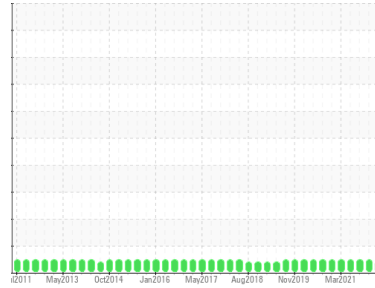
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Area
STARBOARD CRANE
 Machine Id
58-GB-7651B STARBOARD CRANE AGGREGATE GEARBOX (S/N Maint Plan 28275)
 Component
Starboard Gearbox
 Fluid
MOBIL MOBILUBE HD PLUS 75W (--- LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0711674 | WC0590013 | WC0590034 |
| Sample Date | Client Info | | 03 Aug 2023 | 15 May 2022 | 16 Nov 2021 |
| 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 | | | ABNORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) >150 | 38 | 15 | 17 |
| Chromium | ppm | ASTM D5185(m) >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) >10 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) >5 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) >65 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) >80 | 2 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) >8 | 0 | 0 | <1 |
| 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) | 136 | 187 | 191 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | <1 |
| Manganese | ppm | ASTM D5185(m) | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | <1 | <1 | <1 |
| Calcium | ppm | ASTM D5185(m) | 15 | 8 | 9 |
| Phosphorus | ppm | ASTM D5185(m) | 1254 | 1341 | 1352 |
| Zinc | ppm | ASTM D5185(m) | 131 | 44 | 50 |
| Sulfur | ppm | ASTM D5185(m) | 17888 | 22048 | 21260 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

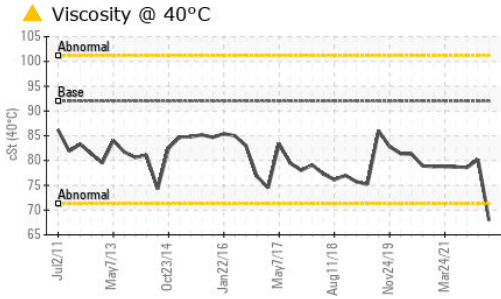
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >20 | 4 | 8 | 9 |
| Sodium | ppm | ASTM D5185(m) | <1 | <1 | <1 |
| Potassium | ppm | ASTM D5185(m) >20 | <1 | 1 | <1 |

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 |

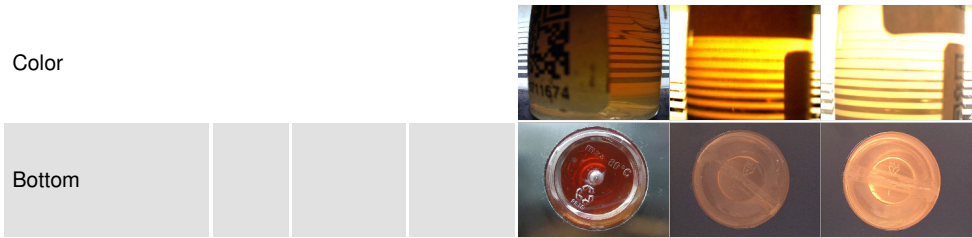


OIL ANALYSIS REPORT

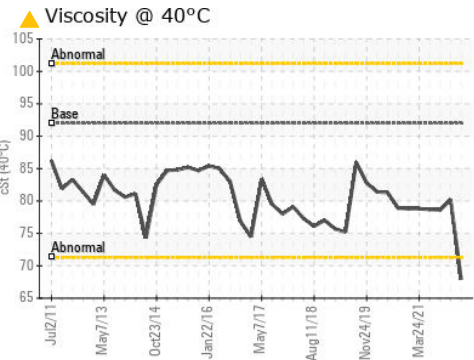
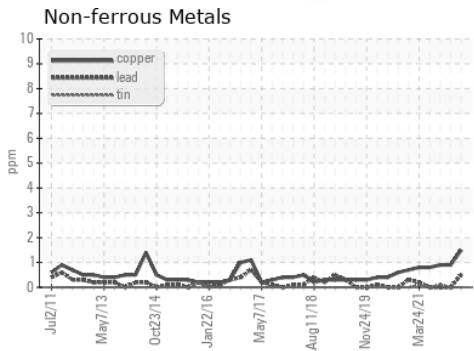
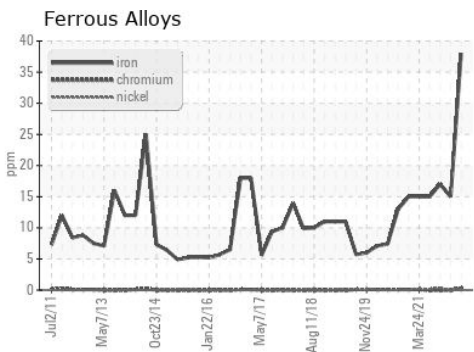


| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | ▲ 67.9 | 80.2 | 78.6 |

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



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HUSKY SEA ROSE /AKER SOLUTIONS
Sample No. : WC0711674 **Received** : 05 Sep 2023
Lab Number : 02580490 **Diagnosed** : 06 Sep 2023
Unique Number : 5633550 **Diagnostician** : Kevin Marson
Test Package : IND 1

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.

Contact: Maintenance Supervisor
 maintsuper.searose@huskyenergy.ca
 T: x:
 F: x: