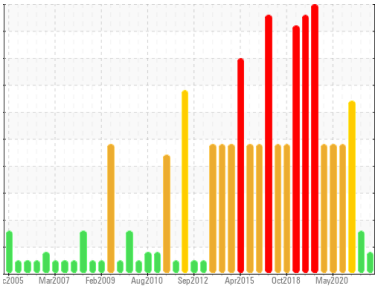
# PROBLEM SUMMARY

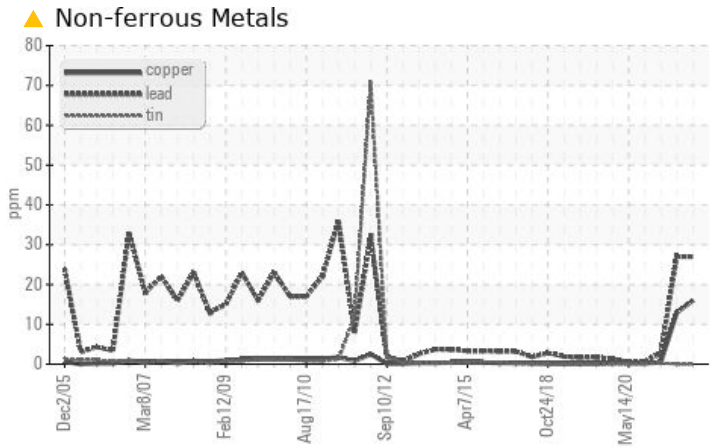
Sample Rating Trend



**WEAR**

Area
**[199043]**
Machine Id
**CAB-G1-TUBR**
Component
**Bearing**
Fluid
**MOBIL DTE OIL HVY MEDIUM (41 LTR)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | ATTENTION | SEVERE |
|---|---|---|---|---|---|---|
| Copper | ppm | ASTM D5185(m) | >13 | ▲ **16** | ▲ 13 | <1 |

**Customer Id:** NEWSTJ
**Sample No.:** WC0455577
**Lab Number:** 02563195
**Test Package:** IND 2

*To manage this report scan the QR code*

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## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | We recommend that you drain the oil from the component if this has not already been done. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

## HISTORICAL DIAGNOSIS

**05 Oct 2022 Diag: Kevin Marson**

WEAR

Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.Copper ppm levels are marginal. All other component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**29 Apr 2021 Diag: Kevin Marson**

DIRT

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Free water present. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

**08 Oct 2020 Diag: Kevin Marson**

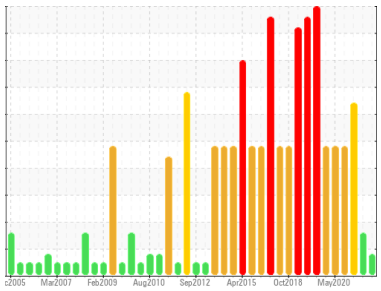
DIRT

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend an early resample to monitor this condition.All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material and/or dirt. The condition of the oil is acceptable for the time in service.

view report

# OIL ANALYSIS REPORT

Sample Rating Trend




**WEAR**

Area
**[199043]**
Machine Id
**CAB-G1-TUBR**
Component
**Bearing**
Fluid
**MOBIL DTE OIL HVY MEDIUM (41 LTR)**

## DIAGNOSIS

**Recommendation**
We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

**Wear**
Copper ppm levels are abnormal. Bearing wear is indicated.

**Contamination**
The water content is negligible. There is no indication of any contamination in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0455577** | WC0455744 | WC0328062 |
| Sample Date | | Client Info | | **04 May 2023** | 05 Oct 2022 | 29 Apr 2021 |
| Machine Age | hrs | Client Info | | **25** | 25 | 0 |
| Oil Age | hrs | Client Info | | **25** | 25 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ABNORMAL** | ATTENTION | SEVERE |

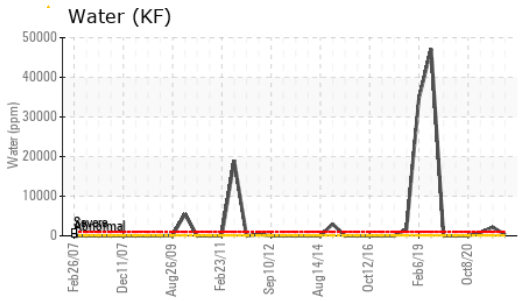
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184* | | **0** | 0 | 0 |
| Iron | ppm | ASTM D5185(m) | >63 | **4** | 4 | 10 |
| Chromium | ppm | ASTM D5185(m) | >20 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >20 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >2 | **<1** | 0 | 0 |
| Lead | ppm | ASTM D5185(m) | >161 | **27** | 27 | 3 |
| Copper | ppm | ASTM D5185(m) | >13 | ▲ **16** | ▲ 13 | <1 |
| Tin | ppm | ASTM D5185(m) | >27 | **0** | 0 | <1 |
| 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) | | **<1** | <1 | 0 |

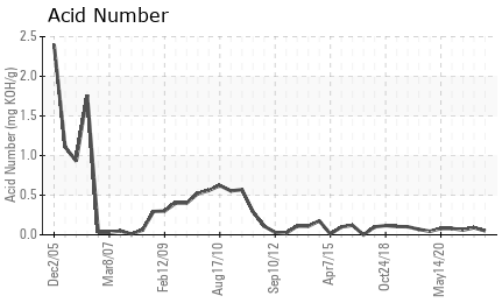
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Calcium | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| Phosphorus | ppm | ASTM D5185(m) | | **125** | ▲ 117 | <1 |
| Zinc | ppm | ASTM D5185(m) | | **25** | ▲ 36 | 9 |
| Sulfur | ppm | ASTM D5185(m) | | **1701** | 1615 | 2064 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

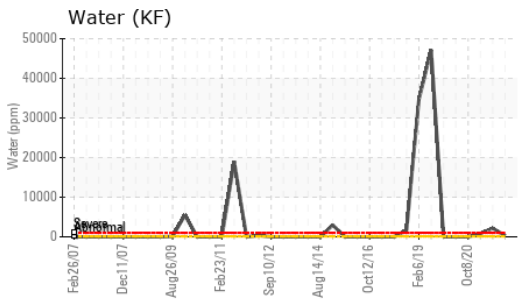
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >12 | **9** | 6 | ⬢ 50 |
| Sodium | ppm | ASTM D5185(m) | | **<1** | <1 | 0 |
| Potassium | ppm | ASTM D5185(m) | >20 | **<1** | <1 | <1 |
| Water | % | ASTM D6304* | >2 | **0.028** | 0.215 | 0.086 |
| ppm Water | ppm | ASTM D6304* | | **284.6** | 2159.0 | 860.8 |

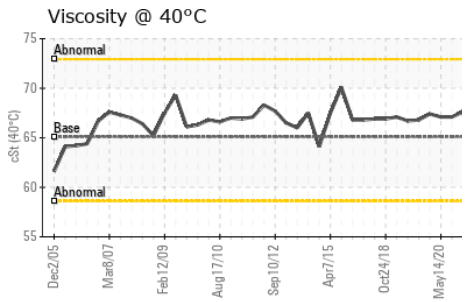
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974* | | **0.05** | 0.09 | 0.06 |

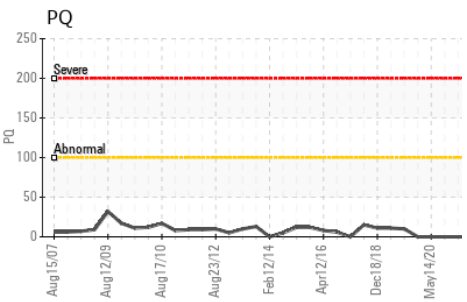
# OIL ANALYSIS REPORT



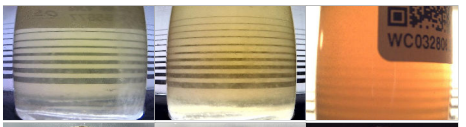
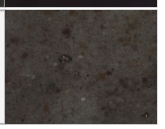



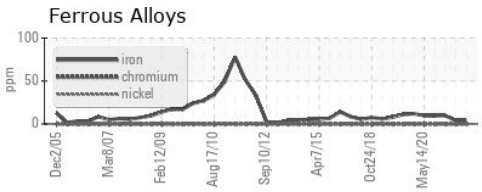



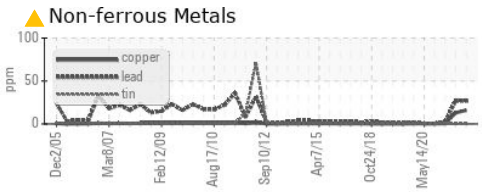

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Silt | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Debris | scalar | Visual* | NONE | **NONE** | NONE | VLITE |
| Sand/Dirt | scalar | Visual* | NONE | **NONE** | NONE | VLITE |
| Appearance | scalar | Visual* | NORML | **NORML** | NORML | NORML |
| Odor | scalar | Visual* | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | Visual* | >2 | **.2%** | .2% | 1% |
| Free Water | scalar | Visual* | | **NEG** | NEG | ▲ 1% |

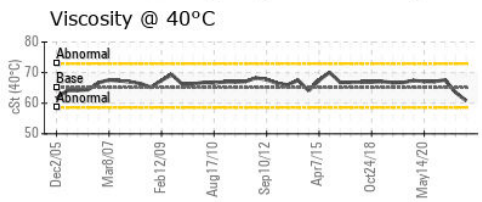
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 65.1 | **60.8** | 63.5 | 67.6 |

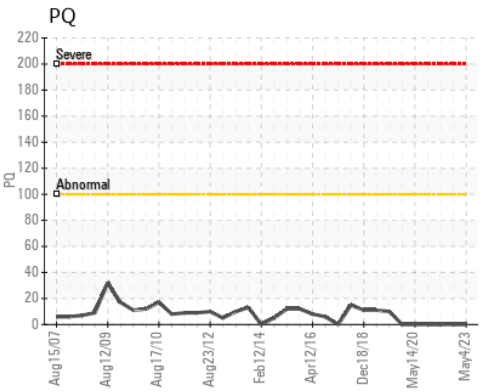
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |
| PrtFilter | | | *no image* | *no image* |  |

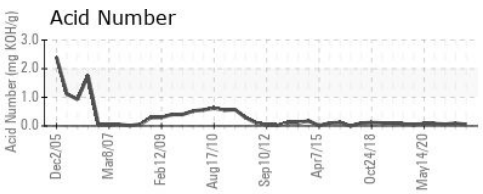
## GRAPHS




CALA Testing Accreditation No. 1005078
ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0455577 **Received** : 09 Jun 2023
**Lab Number** : 02563195 **Diagnosed** : 12 Jun 2023
**Unique Number** : 5592236 **Diagnostician** : Kevin Marson
**Test Package** : IND 2 ( Additional Tests: KF, TAN Man )

*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.*

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