

PROBLEM SUMMARY

Sample Rating Trend

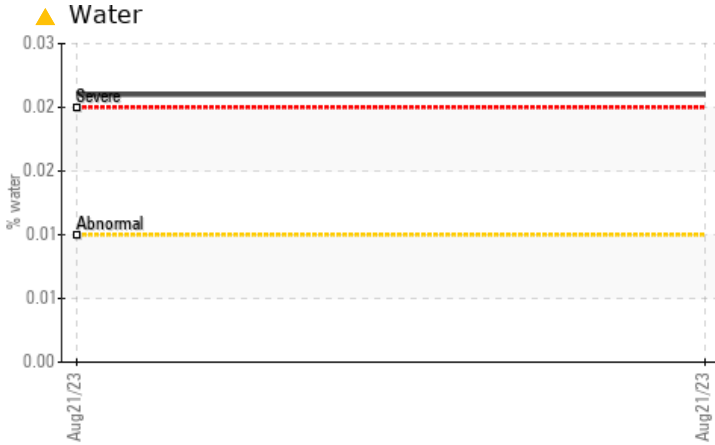


WATER



Machine Id
NOT GIVEN TO90002270
Component
Refrigeration Compressor
Fluid
ISO 100 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | MARGINAL | --- | --- |
|---------------|-----|------------|-------|-----------------|-----|-----|
| Water | % | ASTM D6304 | >0.01 | ▲ 0.021 | --- | --- |
| ppm Water | ppm | ASTM D6304 | >100 | ▲ 212.8 | --- | --- |

Customer Id: UCTULMID
Sample No.: TO90002270
Lab Number: 05931605
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend

WATER



Machine Id
NOT GIVEN TO90002270
 Component
Refrigeration Compressor
 Fluid
ISO 100 (--- GAL)



DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 There is a trace of moisture present in the oil. The amount and size of particulates present in the system are acceptable.

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

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|----------|----------|
| Sample Number | Client Info | TO90002270 | --- | --- |
| Sample Date | Client Info | 21 Aug 2023 | --- | --- |
| Machine Age | yrs Client Info | 0 | --- | --- |
| Oil Age | yrs Client Info | 0 | --- | --- |
| Oil Changed | Client Info | N/A | --- | --- |
| Sample Status | | MARGINAL | --- | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|--------------------------|------------|--------------|----------|----------|
| Iron ppm ASTM D5185m | >8 | 4 | --- | --- |
| Chromium ppm ASTM D5185m | >2 | 0 | --- | --- |
| Nickel ppm ASTM D5185m | | 0 | --- | --- |
| Titanium ppm ASTM D5185m | | 0 | --- | --- |
| Silver ppm ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum ppm ASTM D5185m | >3 | 0 | --- | --- |
| Lead ppm ASTM D5185m | >2 | 0 | --- | --- |
| Copper ppm ASTM D5185m | >8 | <1 | --- | --- |
| Tin ppm ASTM D5185m | >4 | 1 | --- | --- |
| Vanadium ppm ASTM D5185m | | 0 | --- | --- |
| Cadmium ppm ASTM D5185m | | 0 | --- | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|----------------------------|------------|--------------|----------|----------|
| Boron ppm ASTM D5185m | | 0 | --- | --- |
| Barium ppm ASTM D5185m | | 0 | --- | --- |
| Molybdenum ppm ASTM D5185m | | 0 | --- | --- |
| Manganese ppm ASTM D5185m | | <1 | --- | --- |
| Magnesium ppm ASTM D5185m | | <1 | --- | --- |
| Calcium ppm ASTM D5185m | | 3 | --- | --- |
| Phosphorus ppm ASTM D5185m | | 246 | --- | --- |
| Zinc ppm ASTM D5185m | | 0 | --- | --- |
| Sulfur ppm ASTM D5185m | | 11 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|---------------------------|------------|----------------|----------|----------|
| Silicon ppm ASTM D5185m | >15 | 3 | --- | --- |
| Sodium ppm ASTM D5185m | | 3 | --- | --- |
| Potassium ppm ASTM D5185m | >20 | 1 | --- | --- |
| Water % ASTM D6304 | >0.01 | ▲ 0.021 | --- | --- |
| ppm Water ppm ASTM D6304 | >100 | ▲ 212.8 | --- | --- |

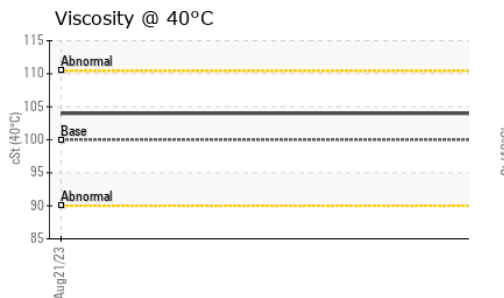
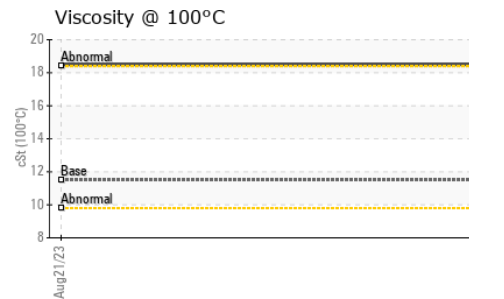
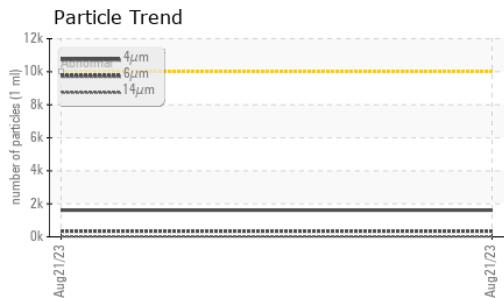
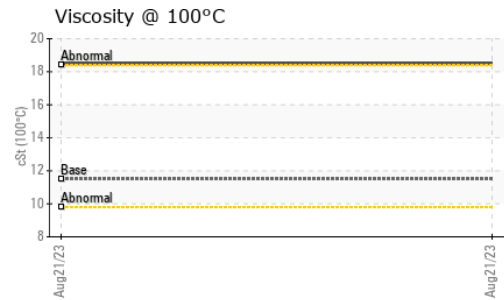
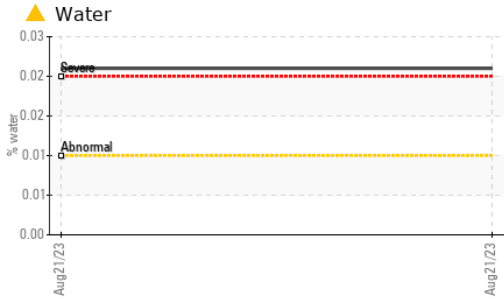
FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 |
|------------------------------|------------|-----------------|----------|----------|
| Particles >4µm ASTM D7647 | >10000 | 1612 | --- | --- |
| Particles >6µm ASTM D7647 | >2500 | 344 | --- | --- |
| Particles >14µm ASTM D7647 | >320 | 24 | --- | --- |
| Particles >21µm ASTM D7647 | >80 | 6 | --- | --- |
| Particles >38µm ASTM D7647 | >20 | 0 | --- | --- |
| Particles >71µm ASTM D7647 | >4 | 0 | --- | --- |
| Oil Cleanliness ISO 4406 (c) | >20/18/15 | 18/16/12 | --- | --- |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|-------------------------------------|------------|--------------|----------|----------|
| Acid Number (AN) mg KOH/g ASTM D974 | | 0.015 | --- | --- |

OIL ANALYSIS REPORT



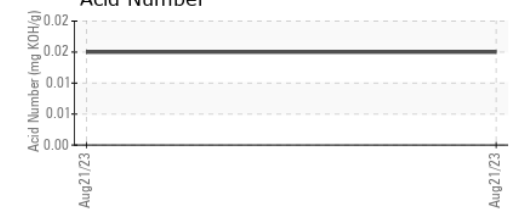
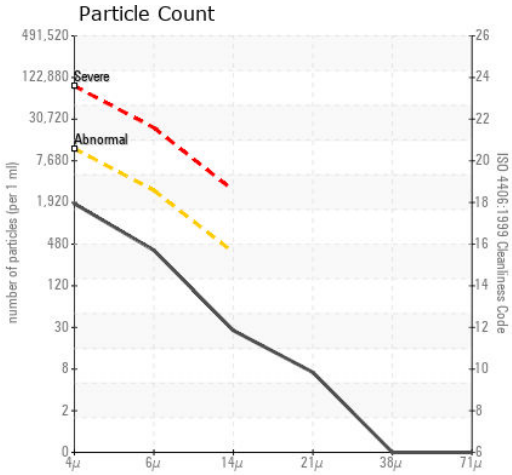
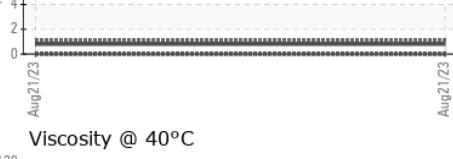
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.01 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 100 | 104 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 11.5 | 18.5 | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 102 | 198 | --- |

SAMPLE IMAGES

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90002270 **Received** : 22 Aug 2023
Lab Number : 05931605 **Diagnosed** : 24 Aug 2023
Unique Number : 10616876 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KV100, PrtCount, VI)

TULCO OILS INC (009-MIDLAND DIVISION)
 2415 S. NICKLAS AVENUE
 OKLAHOMA CITY, OK
 US 73128
 Contact: Service Manager

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)