

# PROBLEM SUMMARY

Sample Rating Trend

ISO



Machine Id  
**C-1161**

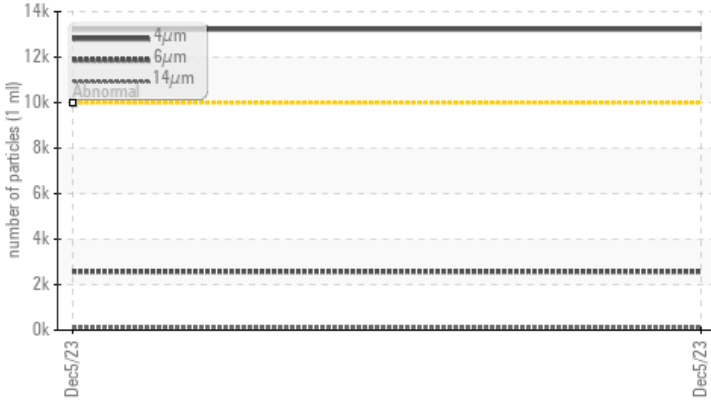
Component  
**Refrigeration Compressor**

Fluid  
**TULCO LUBSOIL SYN RL WI 100 (--- GAL)**



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

| Sample Status   |              |           | <b>ATTENTION</b>  | --- | --- |
|-----------------|--------------|-----------|-------------------|-----|-----|
| Particles >4µm  | ASTM D7647   | >10000    | ▲ <b>13225</b>    | --- | --- |
| Particles >6µm  | ASTM D7647   | >2500     | ▲ <b>2574</b>     | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | ▲ <b>21/19/14</b> | --- | --- |

**Customer Id:** ETCKEN  
**Sample No.:** TO90002474  
**Lab Number:** 06026528  
**Test Package:** IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**C-1161**

Component  
**Refrigeration Compressor**

Fluid  
**TULCO LUBSOIL SYN RL WI 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 moderate amount of silt (particulates < 14 microns in size) present in the oil.

### 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 | <b>TO90002474</b>  | ---      | ---      |
| Sample Date   | Client Info | <b>05 Dec 2023</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info        | <b>0</b> | ---      |
| Oil Age       | hrs         | Client Info        | <b>0</b> | ---      |
| Oil Changed   | Client Info | <b>N/A</b>         | ---      | ---      |
| Sample Status |             | <b>ATTENTION</b>   | ---      | ---      |

## WEAR METALS

| method   | limit/base | current        | history1 | history2 |
|----------|------------|----------------|----------|----------|
| Iron     | ppm        | ASTM D5185m >8 | <1       | ---      |
| Chromium | ppm        | ASTM D5185m >2 | 0        | ---      |
| Nickel   | ppm        | ASTM D5185m    | <1       | ---      |
| Titanium | ppm        | ASTM D5185m    | <1       | ---      |
| Silver   | ppm        | ASTM D5185m >2 | 0        | ---      |
| Aluminum | ppm        | ASTM D5185m >3 | <1       | ---      |
| Lead     | ppm        | ASTM D5185m >2 | 0        | ---      |
| Copper   | ppm        | ASTM D5185m >8 | 0        | ---      |
| Tin      | ppm        | ASTM D5185m >4 | 1        | ---      |
| Vanadium | ppm        | ASTM D5185m    | <1       | ---      |
| 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      | 0           | ---      |
| Magnesium  | ppm        | ASTM D5185m      | 0           | ---      |
| Calcium    | ppm        | ASTM D5185m      | 0           | ---      |
| Phosphorus | ppm        | ASTM D5185m 1500 | <b>1278</b> | ---      |
| Zinc       | ppm        | ASTM D5185m      | 8           | ---      |
| Sulfur     | ppm        | ASTM D5185m      | 0           | ---      |

## CONTAMINANTS

| method    | limit/base | current           | history1     | history2 |
|-----------|------------|-------------------|--------------|----------|
| Silicon   | ppm        | ASTM D5185m >15   | 1            | ---      |
| Sodium    | ppm        | ASTM D5185m       | 2            | ---      |
| Potassium | ppm        | ASTM D5185m >20   | <1           | ---      |
| Water     | %          | ASTM D6304 >2.26  | <b>0.081</b> | ---      |
| ppm Water | ppm        | ASTM D6304 >22600 | <b>811</b>   | ---      |

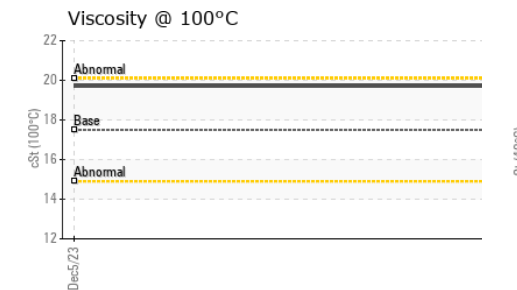
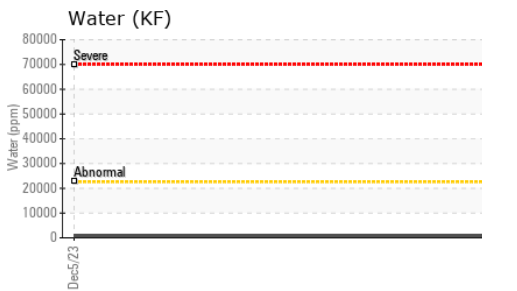
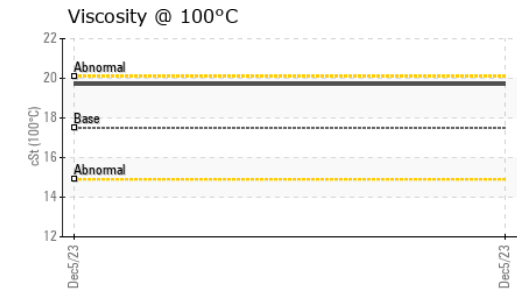
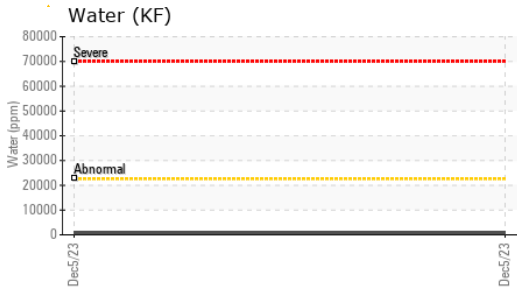
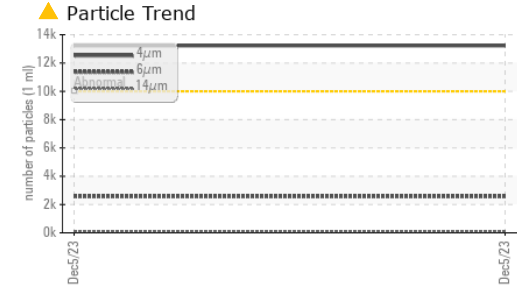
## FLUID CLEANLINESS

| method          | limit/base   | current   | history1          | history2 |
|-----------------|--------------|-----------|-------------------|----------|
| Particles >4µm  | ASTM D7647   | >10000    | ▲ <b>13225</b>    | ---      |
| Particles >6µm  | ASTM D7647   | >2500     | ▲ <b>2574</b>     | ---      |
| Particles >14µm | ASTM D7647   | >320      | <b>110</b>        | ---      |
| Particles >21µm | ASTM D7647   | >80       | <b>24</b>         | ---      |
| Particles >38µm | ASTM D7647   | >20       | <b>2</b>          | ---      |
| Particles >71µm | ASTM D7647   | >4        | <b>0</b>          | ---      |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | ▲ <b>21/19/14</b> | ---      |

## FLUID DEGRADATION



| method           | limit/base | current        | history1     | history2 |
|------------------|------------|----------------|--------------|----------|
| Acid Number (AN) | mg KOH/g   | ASTM D974 0.04 | <b>0.013</b> | ---      |

# OIL ANALYSIS REPORT

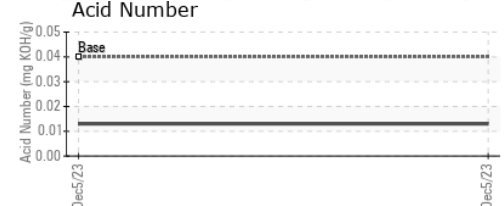
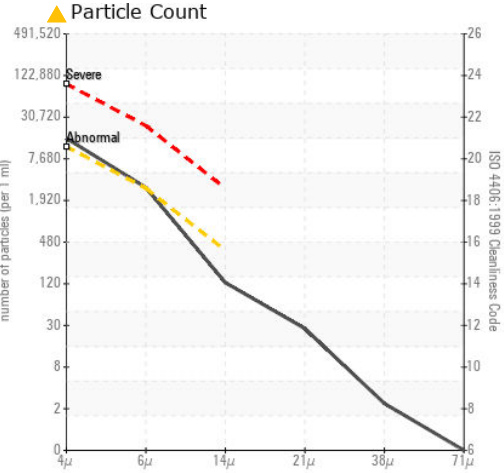
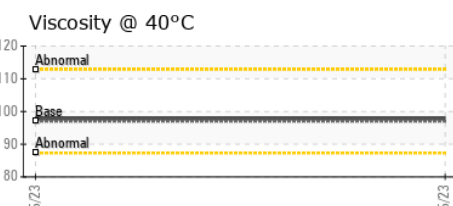
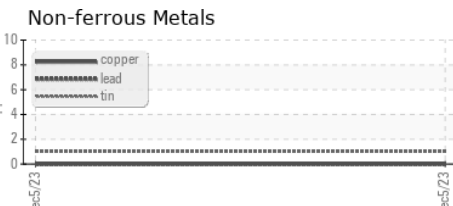
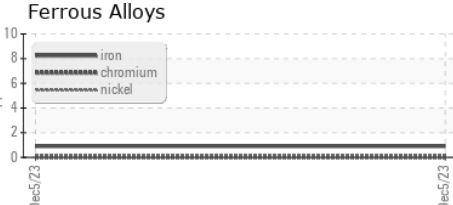


| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| 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    | >2.26   | NEG      | ---      | --- |
| Free Water       | scalar | *Visual    |         | NEG      | ---      | --- |

| FLUID PROPERTIES     | method | limit/base | current | history1 | history2 |     |
|----------------------|--------|------------|---------|----------|----------|-----|
| Visc @ 40°C          | cSt    | ASTM D445  | 97      | 97.8     | ---      | --- |
| Visc @ 100°C         | cSt    | ASTM D445  | 17.5    | 19.71    | ---      | --- |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 198     | 225      | ---      | --- |

| 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.** : TO90002474 **Received** : 06 Dec 2023  
**Lab Number** : 06026528 **Diagnosed** : 12 Dec 2023  
**Unique Number** : 10776319 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KV100, PrtCount, VI )

**ETC - KENEDY**

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)

US  
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