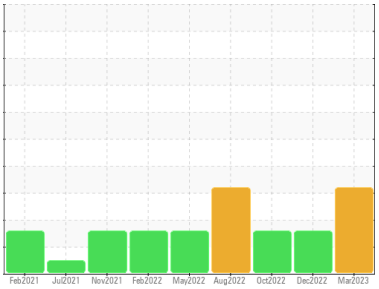
# PROBLEM SUMMARY

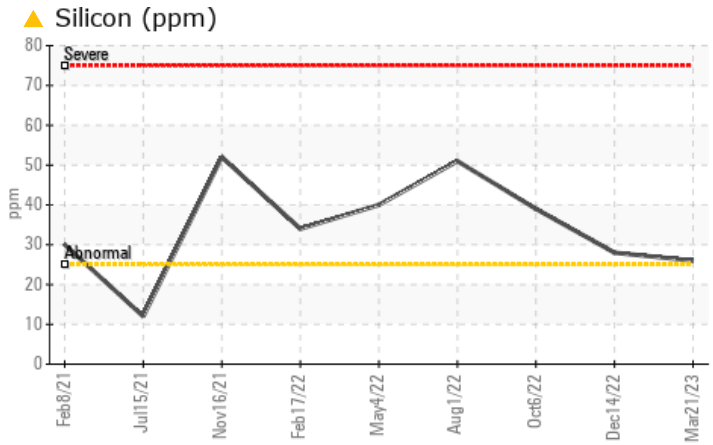
Sample Rating Trend




**WATER**

Machine Id
## LEROI VFS-400-297-5
Component
**Compressor**
Fluid
**SYNTHOSOL VAI SYN 100 (55 GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |
| Silicon | ppm | ASTM D5185m | >25 | ▲ **26** | ▲ 28 | ▲ 39 |
| Free Water | scalar | *Visual | | ▲ **1.0** | NEG | NEG |

**Customer Id:** TETDIA
**Sample No.:** WC0788642
**Lab Number:** 05801834
**Test Package:** PLANT

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Water Drain-off | MISSED | Jun 01 2023 | ? | We advise that you follow the water drain-off procedure for this component. |

## HISTORICAL DIAGNOSIS

**14 Dec 2022 Diag: Don Baldridge**

DIRT

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**06 Oct 2022 Diag: Jonathan Hester**

DIRT

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**01 Aug 2022 Diag: Doug Bogart**

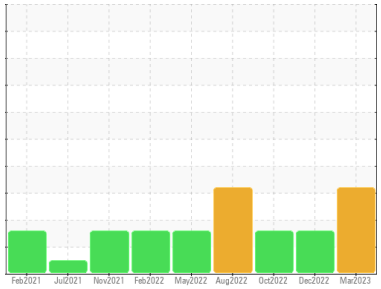
WATER

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Elemental level of silicon (Si) above normal. There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

# OIL ANALYSIS REPORT

Sample Rating Trend




**WATER**

Machine Id
## LEROI VFS-400-297-5
Component
**Compressor**
Fluid
**SYNTHOSOL VAI SYN 100 (55 GAL)**

## DIAGNOSIS

**Recommendation**
We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
Elemental level of silicon (Si) above normal. Free water present. 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 | | **WC0788642** | SYNI2001164 | SYNI2001134 |
| Sample Date | | Client Info | | **21 Mar 2023** | 14 Dec 2022 | 06 Oct 2022 |
| Machine Age | hrs | Client Info | | **7395** | 6023 | 5120 |
| Oil Age | hrs | Client Info | | **7395** | 6023 | 5120 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | 0 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | <1 |
| Nickel | ppm | ASTM D5185m | | **0** | 0 | 2 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | 0 | <1 |
| Lead | ppm | ASTM D5185m | >25 | **0** | 0 | <1 |
| Copper | ppm | ASTM D5185m | >50 | **0** | 0 | <1 |
| Tin | ppm | ASTM D5185m | >15 | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | <1 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | 2 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 1 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Calcium | ppm | ASTM D5185m | | **<1** | 0 | 20 |
| Phosphorus | ppm | ASTM D5185m | | **12** | 33 | 29 |
| Zinc | ppm | ASTM D5185m | | **0** | 0 | 12 |
| Sulfur | ppm | ASTM D5185m | | **27** | 0 | 95 |

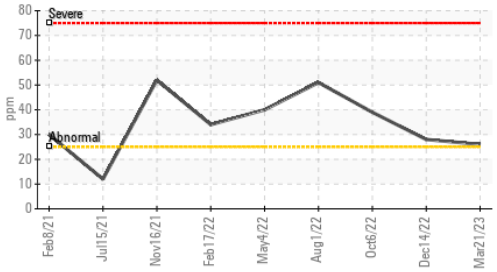
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | ▲ **26** | ▲ 28 | ▲ 39 |
| Sodium | ppm | ASTM D5185m | | **0** | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 0 | <1 |
| Water | % | ASTM D6304 | >0.1 | **0.077** | 0.005 | 0.015 |
| ppm Water | ppm | ASTM D6304 | >1000 | **770** | 55.2 | 155.6 |

| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Particles >4µm | ASTM D7647 | >10000 | **1480** | 2636 | 8703 |
| Particles >6µm | ASTM D7647 | >2500 | **385** | 718 | 2234 |
| Particles >14µm | ASTM D7647 | >320 | **24** | 33 | 153 |
| Particles >21µm | ASTM D7647 | >80 | **7** | 5 | 34 |
| Particles >38µm | ASTM D7647 | >20 | **0** | 0 | 1 |
| Particles >71µm | ASTM D7647 | >4 | **0** | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | **18/16/12** | 19/17/12 | 20/18/14 |

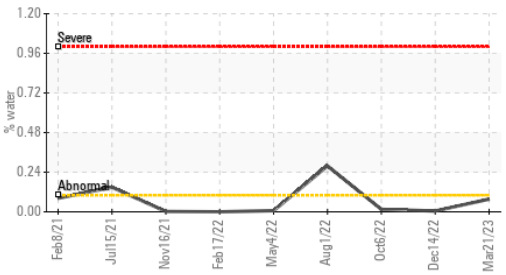
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.167** | 1.04 | 0.456 |

# OIL ANALYSIS REPORT

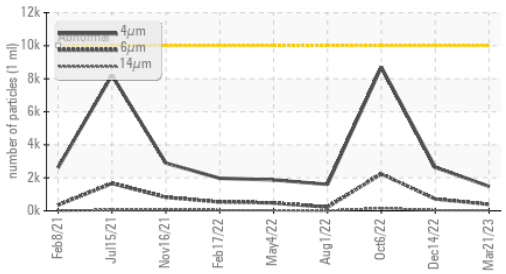
Silicon (ppm)



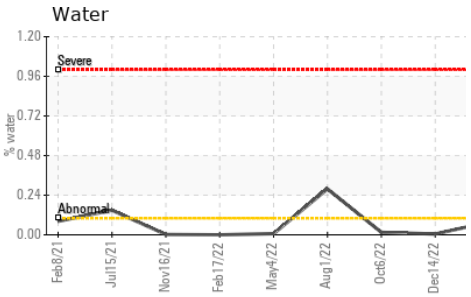

Water



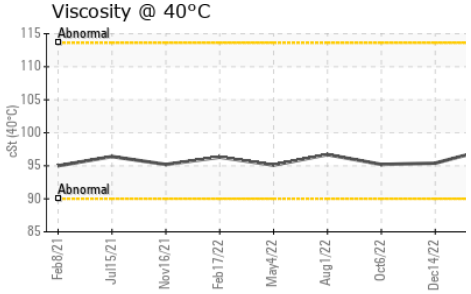

Particle Trend




Water

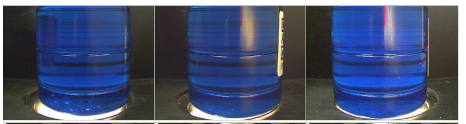
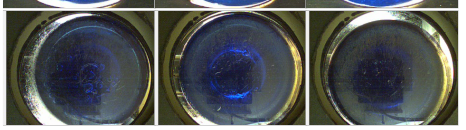



Viscosity @ 40°C



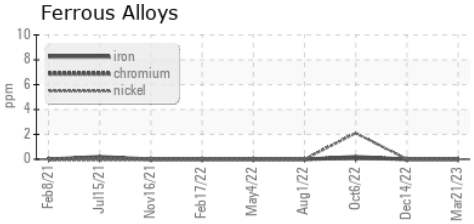

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **LIGHT** | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **LIGHT** | LIGHT | 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 | **0.2%** | NEG | NEG |
| Free Water | scalar | *Visual | | ▲ **1.0** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **97.53** | 95.4 | 95.2 |

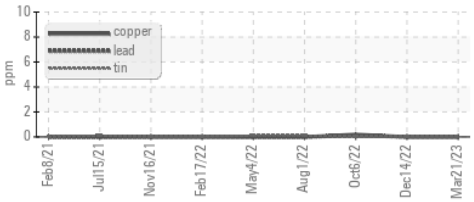
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

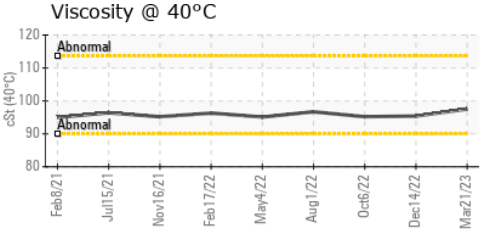
Ferrous Alloys



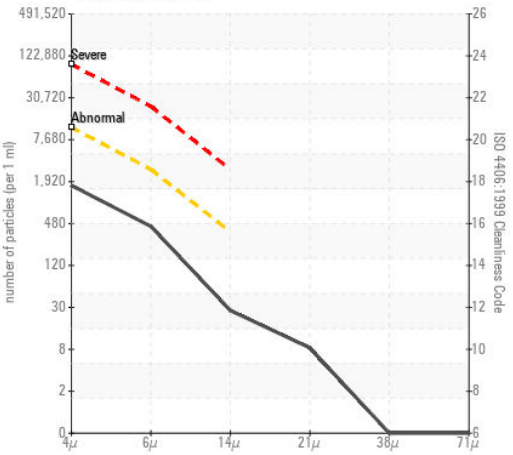

Non-ferrous Metals



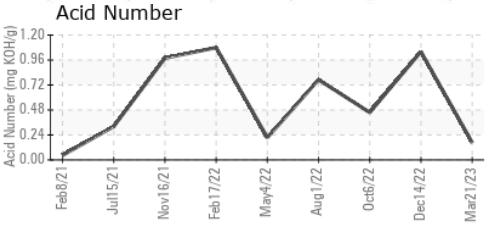

Viscosity @ 40°C




Particle Count




Acid Number




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0788642 **Received** : 24 Mar 2023
**Lab Number** : 05801834 **Diagnosed** : 29 Mar 2023
**Unique Number** : 10399363 **Diagnostician** : Doug Bogart
**Test Package** : PLANT

Certificate L2367

*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)*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