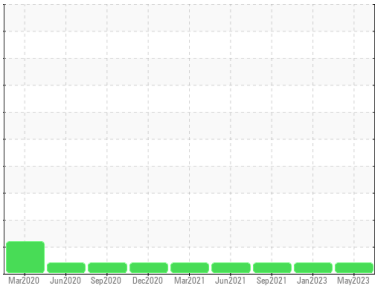
OIL DIAGNOSTICS

# PROBLEM SUMMARY

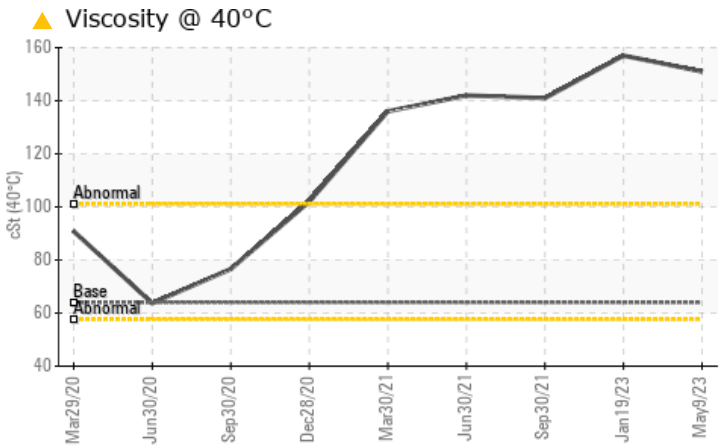
Sample Rating Trend




**VISCOSITY**

Machine Id
## RC-7 (S/N 63284)
Component
**Reciprocating Compressor**
Fluid
**CHEVRON REFRIGERATION OIL WF 68 (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | ATTENTION | ATTENTION | ATTENTION |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 64.0 | ▲ **151** | ▲ 157 | ▲ 141 |

**Customer Id:** KRAWAL
**Sample No.:** PCA0095717
**Lab Number:** 05853248
**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

*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

**19 Jan 2023 Diag: Jonathan Hester**

VISCOSITY

Resample at the next service interval to monitor.All component wear rates are normal. The water content is negligible. The amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

**30 Sep 2021 Diag: Don Baldridge**

VISCOSITY

Resample at the next service interval to monitor.All component wear rates are normal. The water content is negligible. The amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

**30 Jun 2021 Diag: Don Baldridge**

VISCOSITY

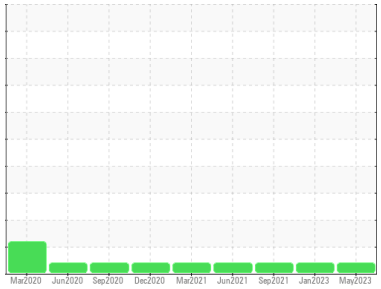
Resample at the next service interval to monitor.All component wear rates are normal. The water content is negligible. The amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

view report

OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

Sample Rating Trend




**VISCOSITY**

Machine Id
## RC-7 (S/N 63284)
Component
**Reciprocating Compressor**
Fluid
**CHEVRON REFRIGERATION OIL WF 68 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

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

**Contamination**
The water content is negligible. The amount and size of particulates present in the system are acceptable.

**Fluid Condition**
The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **PCA0095717** | PCA0088358 | PCA0059321 |
| Sample Date | | Client Info | | **09 May 2023** | 19 Jan 2023 | 30 Sep 2021 |
| Machine Age | hrs | Client Info | | **33217** | 32686 | 27971 |
| Oil Age | hrs | Client Info | | **10901** | 10370 | 5655 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **ATTENTION** | ATTENTION | ATTENTION |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **<1** | <1 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **0** | 0 | 5 |
| Lead | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **0** | 0 | <1 |
| Tin | ppm | ASTM D5185m | >15 | **0** | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | | **11** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | **13** | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | **13** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **14** | 4 | 4 |
| Zinc | ppm | ASTM D5185m | | **71** | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | **207** | 0 | 254 |

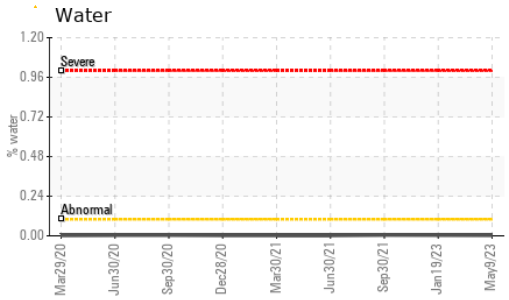
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Sodium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Water | % | ASTM D6304 | >0.1 | **0.002** | 0.003 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >1000 | **16.0** | 35.8 | 41.9 |

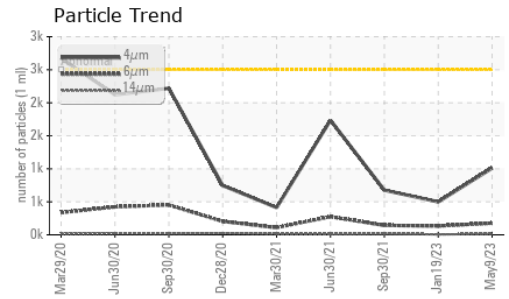
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >2500 | **1010** | 499 | 677 |
| Particles >6µm | | ASTM D7647 | >320 | **177** | 134 | 143 |
| Particles >14µm | | ASTM D7647 | >40 | **14** | 6 | 17 |
| Particles >21µm | | ASTM D7647 | >10 | **4** | 2 | 4 |
| Particles >38µm | | ASTM D7647 | >3 | **1** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **1** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >18/15/12 | **17/15/11** | 16/14/10 | 17/14/11 |

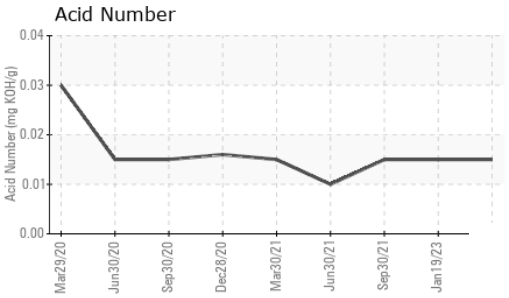
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.015** | 0.015 | 0.015 |

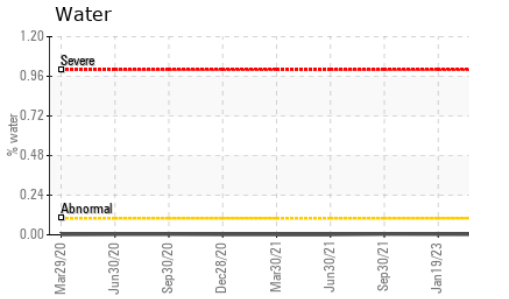
# OIL ANALYSIS REPORT

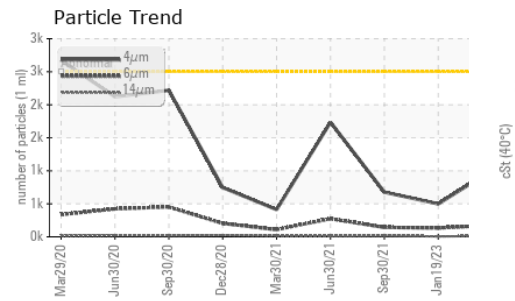
OIL DIAGNOSTICS



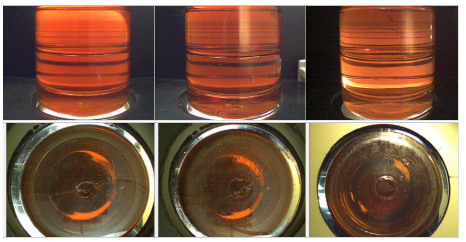



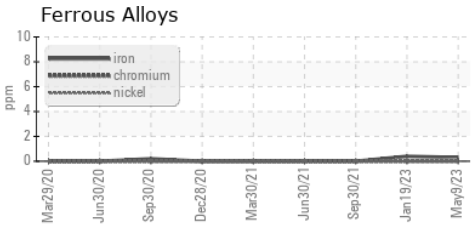

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

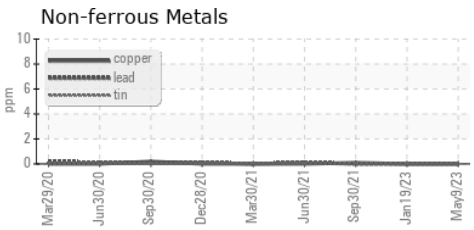
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 64.0 | ▲ **151** | ▲ 157 | ▲ 141 |

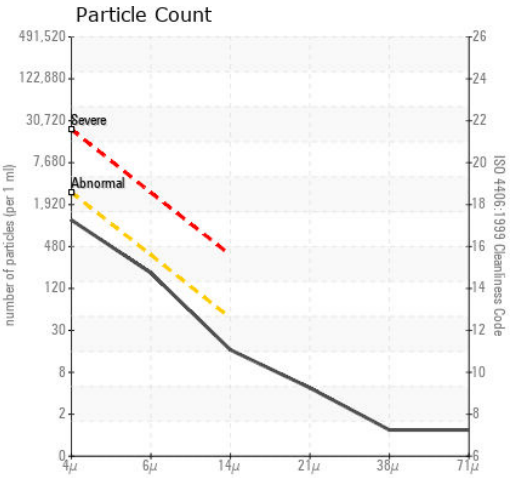
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | | | |
| Bottom | | | | | |

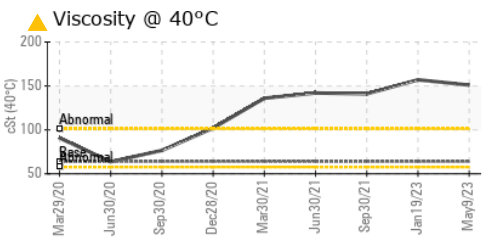


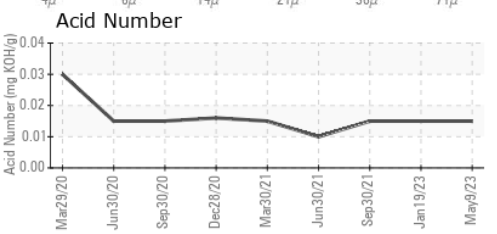
## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0095717 **Received** : 22 May 2023
**Lab Number** : 05853248 **Diagnosed** : 24 May 2023
**Unique Number** : 10482603 **Diagnostician** : Jonathan Hester
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

*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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