# OIL ANALYSIS REPORT

Sample Rating Trend


ISO

Machine Id
## ATLAS COPCO 050116
Component
**Compressor**
Fluid
**ATLAS COPCO PAROIL S (--- 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 high 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 | | **TO50002097** | --- | --- |
| Sample Date | | Client Info | | **19 Apr 2024** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **4** | --- | --- |
| Chromium | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Nickel | ppm | ASTM D5185m | | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >15 | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | >65 | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | >65 | **0** | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | **<1** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | --- | --- |
| Manganese | ppm | ASTM D5185m | 0 | **0** | --- | --- |
| Magnesium | ppm | ASTM D5185m | 0 | **1** | --- | --- |
| Calcium | ppm | ASTM D5185m | 0 | **84** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 100 | **202** | --- | --- |
| Zinc | ppm | ASTM D5185m | 0 | **240** | --- | --- |
| Sulfur | ppm | ASTM D5185m | 200 | **569** | --- | --- |

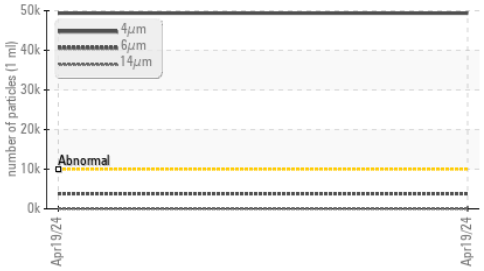
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >35 | **<1** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **3** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | --- | --- |
| Water | % | ASTM D6304 | >0.1 | **0.005** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >1000 | **58** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ **49368** | --- | --- |
| Particles >6µm | | ASTM D7647 | >2500 | ● **3822** | --- | --- |
| Particles >14µm | | ASTM D7647 | >320 | **38** | --- | --- |
| Particles >21µm | | ASTM D7647 | >80 | **9** | --- | --- |
| Particles >38µm | | ASTM D7647 | >20 | **0** | --- | --- |
| Particles >71µm | | ASTM D7647 | >4 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | ▲ **23/19/12** | --- | --- |

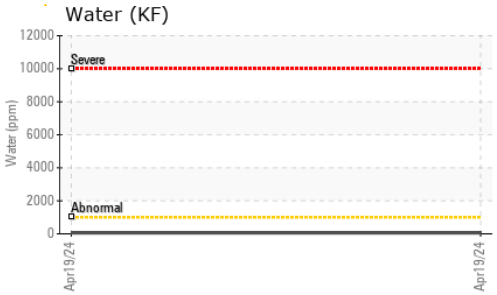
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.38** | --- | --- |

# OIL ANALYSIS REPORT

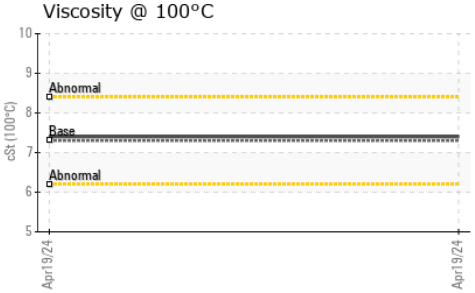
Particle Trend



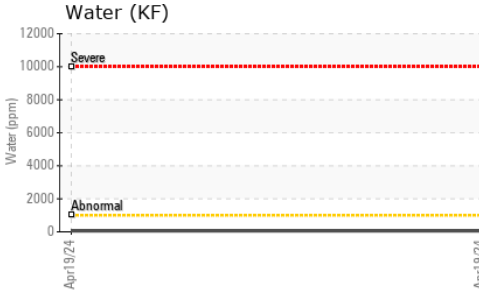

Water (KF)



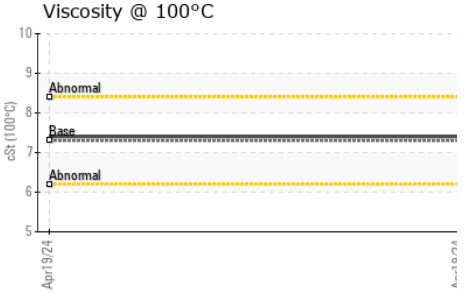

Viscosity @ 100°C




Water (KF)




Viscosity @ 100°C



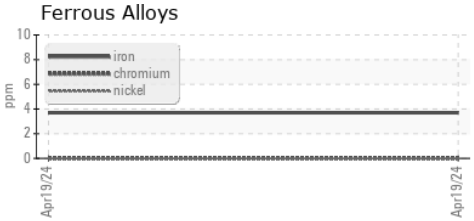

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt |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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46.0 | **46.6** | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 7.3 | **7.4** | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 133 | **121** | --- | --- |

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

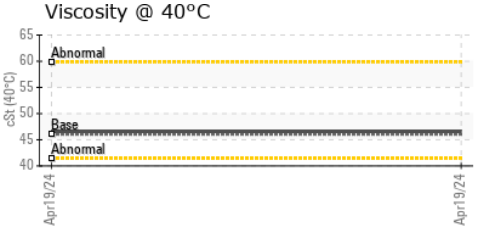
GRAPHS

Ferrous Alloys

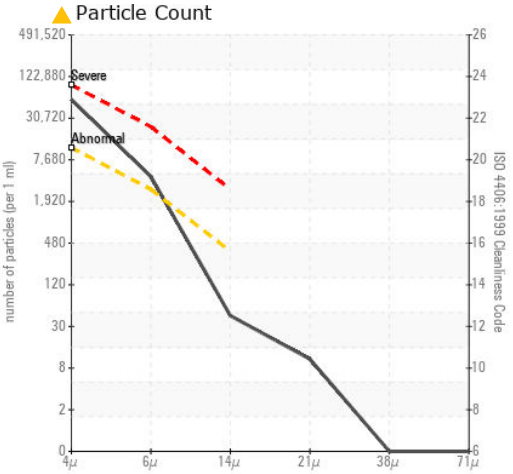



Non-ferrous Metals

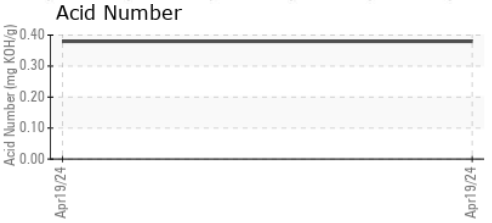

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : TO50002097
**Lab Number** : 06159115
**Unique Number** : 10994538
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**Received** : 24 Apr 2024
**Tested** : 25 Apr 2024
**Diagnosed** : 26 Apr 2024 - Jonathan Hester

**US SHORING**
11070 SOUTH PIPELINE RD
EULESS, TX
US 76040
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)*

T:
F: