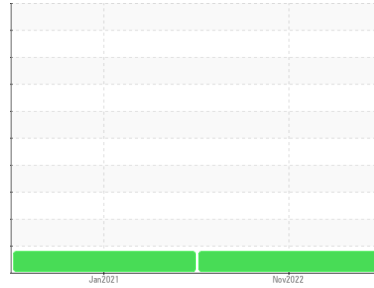




PROBLEM SUMMARY

Sample Rating Trend

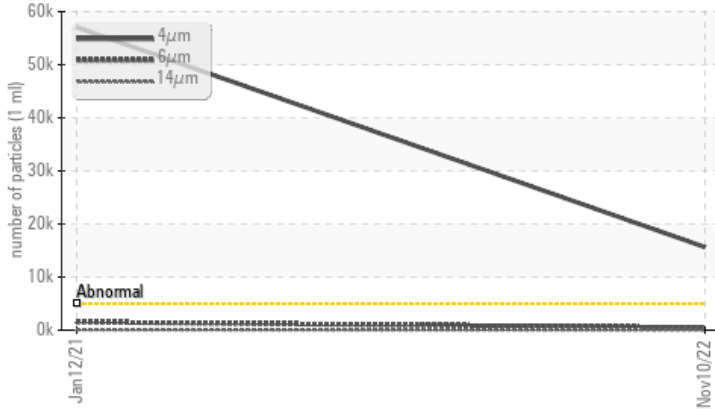
ISO



Machine Id
PALFINGER 56137 - L&W SUPPLY
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | ABNORMAL | ABNORMAL | --- |
|-----------------|------------------------|-------------------|------------|-----|
| Particles >4µm | ASTM D7647 >5000 | ▲ 15635 | ▲ 57066 | --- |
| Oil Cleanliness | ISO 4406 (c) >19/17/14 | ▲ 21/16/12 | ▲ 23/18/13 | --- |

Customer Id: PALJACNJ
 Sample No.: WC0723979
 Lab Number: 05696944
 Test Package: CONST



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

12 Jan 2021 Diag: Jonathan Hester

ISO



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

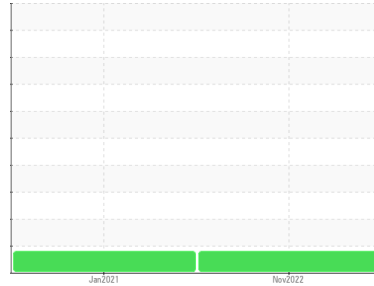
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
PALFINGER 56137 - L&W SUPPLY

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. 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 | | WC0723979 | WC0470487 | --- |
| Sample Date | Client Info | | 10 Nov 2022 | 12 Jan 2021 | --- |
| Machine Age | hrs | Client Info | 4346 | 2505 | --- |
| Oil Age | hrs | Client Info | 4346 | 0 | --- |
| Oil Changed | Client Info | | Not Chngd | Not Chngd | --- |
| Sample Status | | | ABNORMAL | ABNORMAL | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 12 | 8 | --- |
| Chromium | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m | 2 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Lead | ppm | ASTM D5185m >10 | <1 | 0 | --- |
| Copper | ppm | ASTM D5185m >75 | 1 | <1 | --- |
| Tin | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Antimony | ppm | ASTM D5185m | --- | 0 | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 5 | 1 | 2 | --- |
| Barium | ppm | ASTM D5185m 5 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m 5 | <1 | <1 | --- |
| Manganese | ppm | ASTM D5185m | 0 | 0 | --- |
| Magnesium | ppm | ASTM D5185m 25 | 8 | 7 | --- |
| Calcium | ppm | ASTM D5185m 200 | 63 | 60 | --- |
| Phosphorus | ppm | ASTM D5185m 300 | 266 | 274 | --- |
| Zinc | ppm | ASTM D5185m 370 | 340 | 317 | --- |
| Sulfur | ppm | ASTM D5185m 2500 | 1661 | 1201 | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | <1 | <1 | --- |
| Sodium | ppm | ASTM D5185m | 0 | <1 | --- |
| Potassium | ppm | ASTM D5185m >20 | 1 | 0 | --- |

FLUID CLEANLINESS

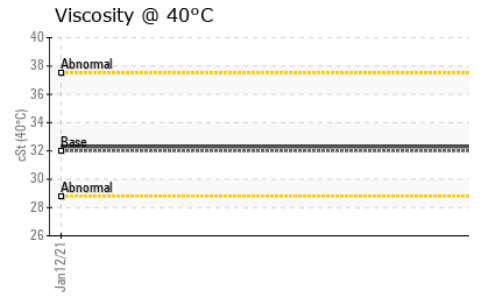
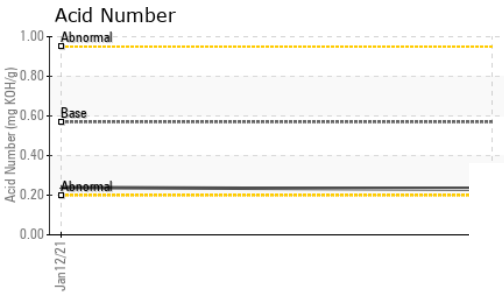
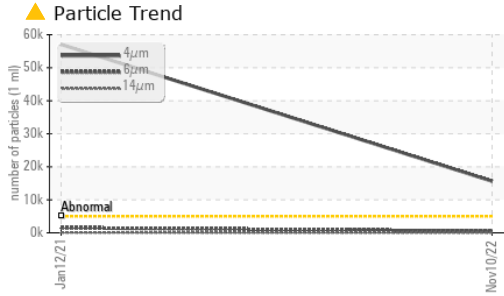
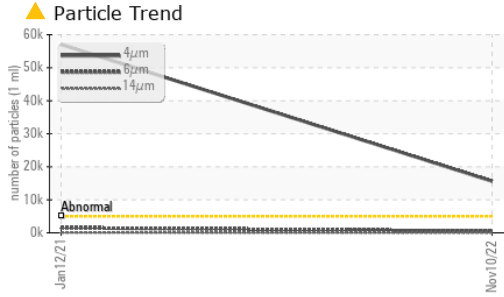
| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-------------------|------------|----------|
| Particles >4µm | ASTM D7647 | >5000 | ▲ 15635 | ▲ 57066 | --- |
| Particles >6µm | ASTM D7647 | >1300 | 464 | ▲ 1519 | --- |
| Particles >14µm | ASTM D7647 | >160 | 27 | 78 | --- |
| Particles >21µm | ASTM D7647 | >40 | 8 | 24 | --- |
| Particles >38µm | ASTM D7647 | >10 | 1 | 2 | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | ▲ 21/16/12 | ▲ 23/18/13 | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.57 | 0.23 | 0.239 | --- |



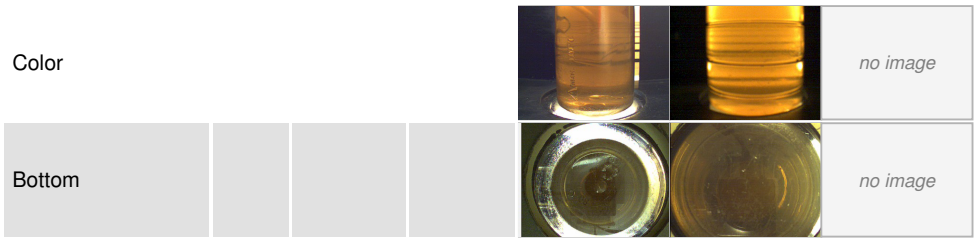
OIL ANALYSIS REPORT



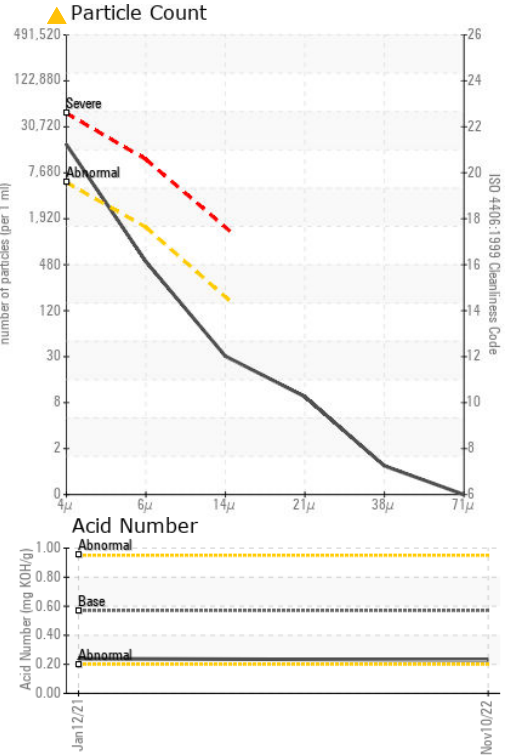
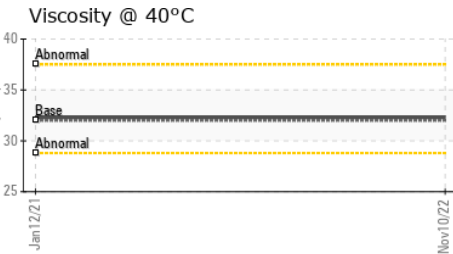
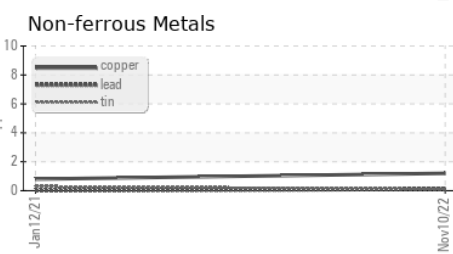
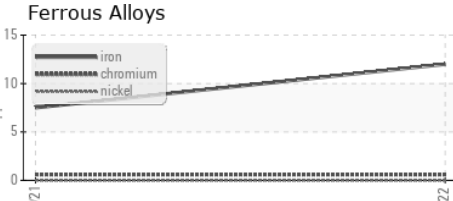
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | ---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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 32 | 32.3 | 32.3 | --- |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0723979 **Received** : 17 Nov 2022
Lab Number : **05696944** **Diagnosed** : 18 Nov 2022
Unique Number : 10221517 **Diagnostician** : Angela Borella
Test Package : CONST

PALFINGER - BRANCH 410
 632 CEDAR SWAMP RD
 JACKSON, NJ
 US 08527
 Contact: ANTHONY HARTIGAN
 a.hartigan@palfinger.com

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)