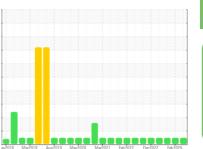


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

ATLAS COPCO ATLAS 4 (S/N API625593)

Air Compressor

USPI AIR 46 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

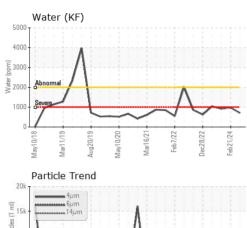
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

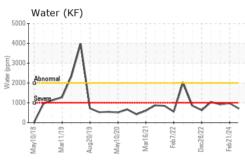
| | | ay2018 Mar2 | 019 Aug2019 May2020 | Mar2021 Feb2022 Dec2022 | Feb2024 | |
|------------------|----------|--------------|---------------------|-------------------------|-------------|-------------|
| SAMPLE INFORM | MATION | method | limit/base | ourrent | history1 | hioton/2 |
| | IATION | | IIIIIIVDase | current | • | history2 |
| Sample Number | | Client Info | | USPM37838 | USPM30087 | USPM27489 |
| Sample Date | | Client Info | | 20 Jun 2024 | 21 Feb 2024 | 12 Jul 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >70 | 1 | 0 | <1 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >6 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | <1 | 1 |
| Lead | ppm | ASTM D5185m | >20 | <1 | 0 | 1 |
| Copper | ppm | ASTM D5185m | >80 | <1 | 0 | 5 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | 0 | 1 | 7 |
| Phosphorus | ppm | ASTM D5185m | 1 | 2 | 2 | 16 |
| Zinc | ppm | ASTM D5185m | 0 | <1 | 0 | 10 |
| Sulfur | ppm | ASTM D5185m | 0 | 0 | 17 | 70 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >12 | <1 | <1 | 1 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | <1 | 2 |
| Water | % | ASTM D6304 | >0.2 | 0.070 | 0.097 | 0.091 |
| ppm Water | ppm | ASTM D6304 | >2000 | 709 | 973 | 919.6 |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | 1053 | 1516 | 685 |
| Particles >6µm | | ASTM D7647 | >2500 | 356 | 297 | 185 |
| Particles >14µm | | ASTM D7647 | >320 | 35 | 18 | 19 |
| Particles >21µm | | ASTM D7647 | >80 | 8 | 5 | 8 |
| Particles >38µm | | ASTM D7647 | >20 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | 17/16/12 | 18/15/11 | 17/15/11 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.05 | 0.47 | 0.31 | 0.32 |

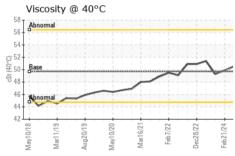


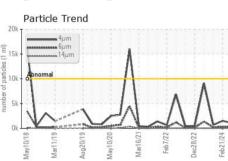
OIL ANALYSIS REPORT



| 5k - | 4µ •••••••••••••••••••••••••••••••••••• | | | | | | |
|-----------------|--|----------|---------|----------|---------|----------|----------|
| 5k - Abn | ormal | am | | Λ | | | |
| OK T G | | | | | A | ٨ | |
| 5k | ^- | 1 | لر | N | _/\ | 1 | |
| 0k May10/18 | 6 | Aug20/19 | 20 | Mar16/21 | Feb7/22 | 722 | 24 |
| 0 | Mar11, | 20 | May10/. | 116 | 199 | Dec28/22 | Feb21/24 |







| 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 | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| | | | | | | |
| FLUID PROPERT | TES | method | | | | history2 |

| I LOID I HOI LITT | ILO | memou | | | HISTORY | HISTOLYZ |
|-------------------|-----|-----------|------|------|---------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 49.7 | 50.5 | 49.9 | 49.3 |

| SAMPLE | IMAGES |
|--------|--------|
|--------|--------|

Color

Bottom







| GF | RAPHS | | | | | | | |
|-----------------------------|-----------------------|----------|----------|---------|----------|----------|--|--------------------------------|
| Fer | rous Alloys | ; | | | | | Particle Count | т26 |
| 8- | iron | | | | | | 122,880 Severe | +24 |
| E 6 | nickel | | | | | | | |
| 2 | | | | | \wedge | | 30,720 Abnormal | -22 |
| 0 | - ET | 20 | 12/ | 722 | 22 | 24 | ₹ 7,680 | -20 80 4 |
| May10/18 | Mar11/19 | May10/20 | Mar16/21 | Feb7/22 | Dec28/22 | Feb21/24 | <u>a</u> 1,920 | -18 :18 |
| No | n-ferrous M | | | | | | (in 1.920 480 480 1.920 1.92 | 180 4406:1999 Cleanliness Code |
| 10 8 8 | copper | | | | | | 20 120 | 14 es |
| E 6+ | tin | | | | - / | 1 | 30 | -12 de |
| 2- | 1 | | | | | | 8 | +10 |
| 0 000 | | 20 | 21 | 22 | 22 | 7 | 2 | 8 |
| May10/18 | Mar11/19 | May10/20 | Mar16/21 | Feb7/22 | Dec28/22 | Feb21/24 | | |
| | cosity @ 40 | | - | | 8177 | | 4μ 6μ 14μ 21μ Acid Number | 71^{6}_{μ} |
| 60 Abn | ormal | | 17-7-1 | | | | 울1.20 T | |
| 55 - Bas 30 - Bas Abn | | | | | | | © 0.96 © 0.72 | Λ |
| 45 Abn | ormal | | | - | | - | B 0.48 | |
| 40 | | | | | | | A Sold Number (1997) (1 | |
| May10/18 | Mar11/19 - Aug20/19 - | May10/20 | Mar16/21 | Feb7/22 | Dec28/22 | Feb21/24 | May10/18 Mar11/19 Aug20/19 May10/20 Feb7/22 | Dec28/22 Feb21/24 |
| May | Ma | May | Ma | 프 | Dec | 臣 | May May May Fe | Dec Feb |





Certificate 12367

Laboratory Sample No. Lab Number : 06217340

: USPM37838 Unique Number : 11090204 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Jun 2024

Tested : 25 Jun 2024 Diagnosed : 25 Jun 2024 - Doug Bogart

TYSON -HOUSTON -USP - TYSHOUPOR

300 PORTWELL RD. HOUSTON, TX US 77029

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)

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F: