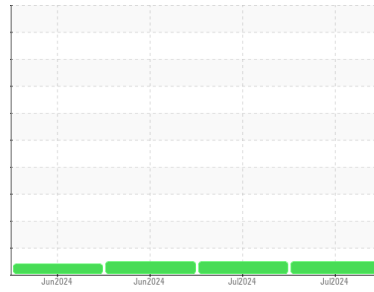




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
BUSCH VAC LINE 2
 Component
Vacuum Pump
 Fluid
BUSCH VM 100 (5 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

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.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|-------------|-------------|
| Sample Number | Client Info | RP142229 | RP142232 | RP142235 |
| Sample Date | Client Info | 12 Jul 2024 | 08 Jul 2024 | 28 Jun 2024 |
| Machine Age | hrs Client Info | 24 | 4 | 3 |
| Oil Age | hrs Client Info | 24 | 4 | 3 |
| 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 >20 | 0 | 7 | 1 |
| Chromium ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Nickel ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| Titanium ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum ppm | ASTM D5185m >20 | 0 | 0 | 2 |
| Lead ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| Copper ppm | ASTM D5185m >20 | 0 | 1 | 0 |
| Tin ppm | ASTM D5185m >20 | 0 | <1 | 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 | 0 | 4 | 0 |
| Molybdenum ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese ppm | ASTM D5185m | 0 | 0 | 0 |
| Magnesium ppm | ASTM D5185m | 0 | <1 | <1 |
| Calcium ppm | ASTM D5185m | <1 | 10 | 0 |
| Phosphorus ppm | ASTM D5185m | 0 | 7 | 0 |
| Zinc ppm | ASTM D5185m | 0 | 0 | 0 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|---------------|------------------|--------------|----------|----------|
| Silicon ppm | ASTM D5185m >15 | <1 | 1 | <1 |
| Sodium ppm | ASTM D5185m | 2 | 3 | 0 |
| Potassium ppm | ASTM D5185m >20 | 0 | 1 | <1 |
| Water % | ASTM D6304 >.1 | 0.018 | 0.016 | 0.003 |
| ppm Water ppm | ASTM D6304 >1000 | 187 | 169 | 40 |

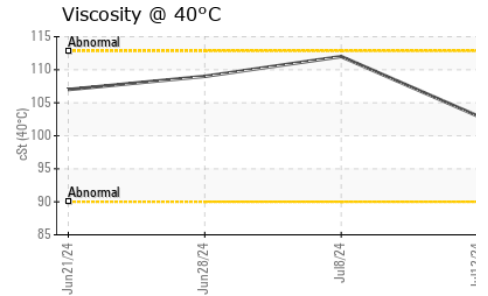
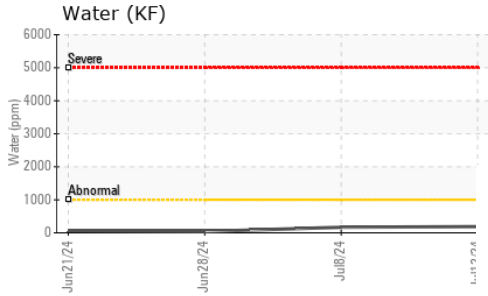
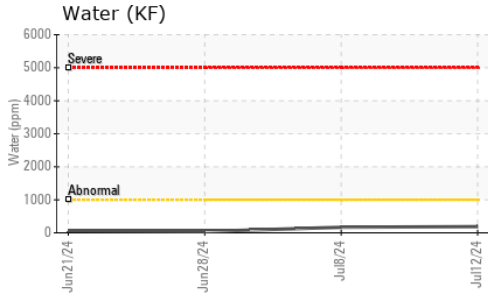
FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|---------------------------|------------|-------------|----------|----------|
| Acid Number (AN) mg KOH/g | ASTM D8045 | 0.38 | 0.18 | 0.21 |

VISUAL

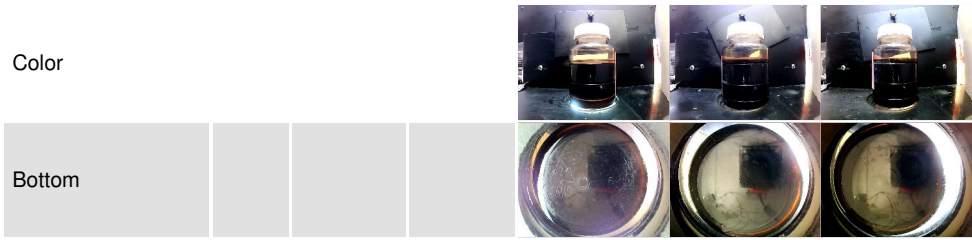
| method | limit/base | current | history1 | history2 |
|-------------------------|---------------|--------------|----------|----------|
| White Metal scalar | *Visual NONE | NONE | NONE | NONE |
| Yellow Metal scalar | *Visual NONE | NONE | NONE | NONE |
| Precipitate scalar | *Visual NONE | NONE | NONE | NONE |
| Silt scalar | *Visual NONE | NONE | NONE | NONE |
| Debris scalar | *Visual NONE | LIGHT | NONE | LIGHT |
| 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 >.1 | NEG | NEG | NEG |
| Free Water scalar | *Visual | NEG | NEG | NEG |

OIL ANALYSIS REPORT

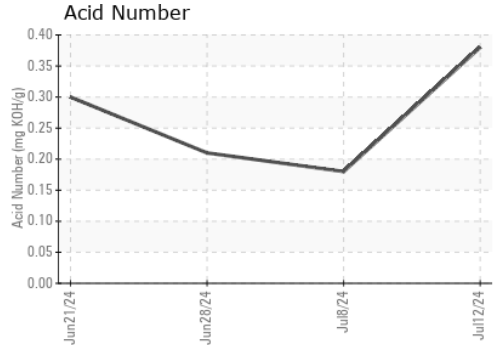
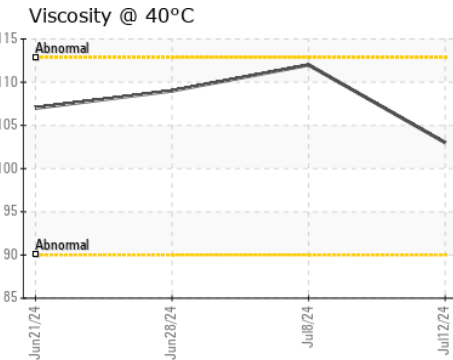
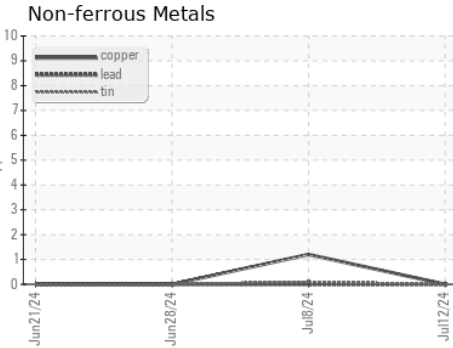
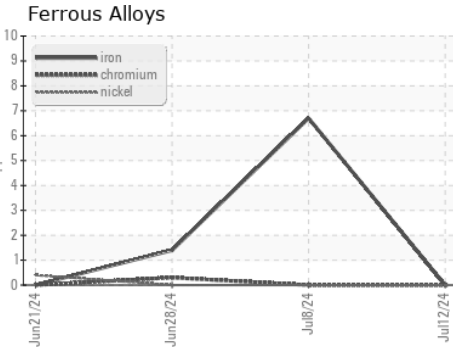


| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 103 | 112 | 109 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP142229 **Received** : 18 Jul 2024
Lab Number : 06240431 **Tested** : 19 Jul 2024
Unique Number : 11129265 **Diagnosed** : 19 Jul 2024 - Doug Bogart
Test Package : IND 2

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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