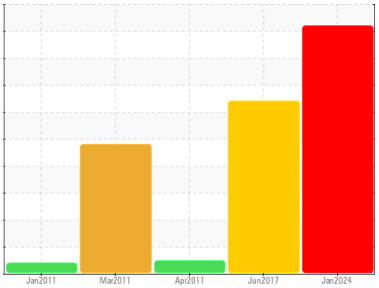
# PROBLEM SUMMARY

Sample Rating Trend

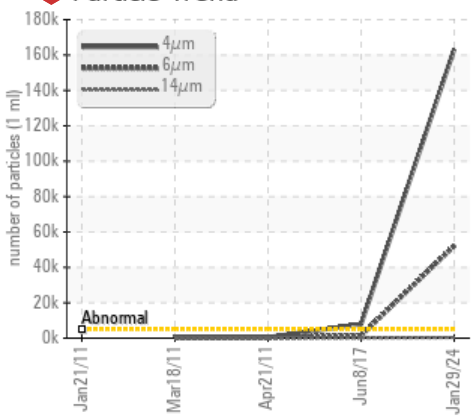



ISO

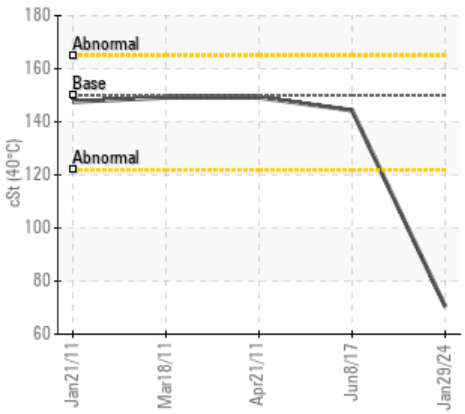
Area
**TM 11**
Machine Id
**TM 11 WEST SIDE DRYER FAN PUMP**
Component
**Pump**
Fluid
**ROYAL PURPLE SYNFILM 150 (--- GAL)**

## COMPONENT CONDITION SUMMARY

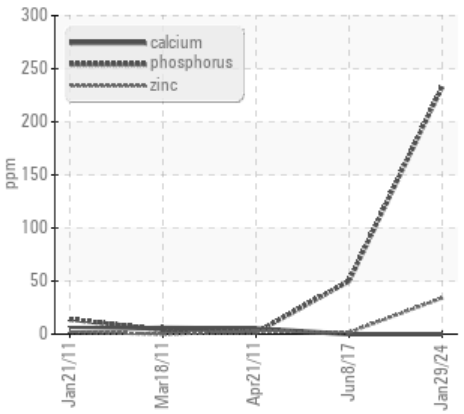
Particle Trend




Viscosity @ 40°C




Additives




## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | SEVERE | SEVERE | MARGINAL |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **163217** | 7897 | 461 |
| Particles >6µm | | ASTM D7647 | >1300 | **52133** | 1512 | 251 |
| Particles >14µm | | ASTM D7647 | >160 | **325** | 106 | 42 |
| Particles >21µm | | ASTM D7647 | >40 | **76** | 30 | 14 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **25/23/16** | 20/18/14 | 16/15/13 |

**Customer Id:** KIMMOBTM11
**Sample No.:** RP0038094
**Lab Number:** 06074731
**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

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Filter | --- | --- | ? | We recommend you service the filters on this component if applicable. |

## HISTORICAL DIAGNOSIS

**08 Jun 2017 Diag: Doug Bogart**

**ISO**

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**view report**

**21 Apr 2011 Diag: Jonathan Hester**

**WATER**

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a trace of moisture present in the oil. The amount and size of particulates present in the system is acceptable. The condition of oil is suitable for further service.

**view report**

**18 Mar 2011 Diag: Jonathan Hester**

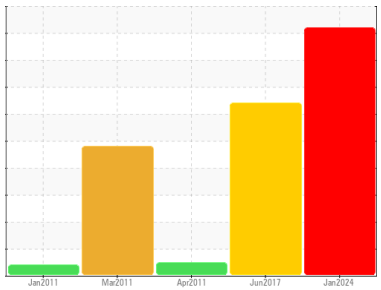
**WATER**

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Free water present. There is a light concentration of water present in the oil. The amount and size of particulates present in the system is acceptable. The condition of oil is suitable for further service.

**view report**

# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Area
**TM 11**
Machine Id
**TM 11 WEST SIDE DRYER FAN PUMP**
Component
**Pump**
Fluid
**ROYAL PURPLE SYNFILM 150 (--- GAL)**

## DIAGNOSIS

**Recommendation**
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

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

**Contamination**
There is a high amount of particulates present in the oil.

**Fluid Condition**
Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **RP0038094** | RP185452 | RP69311 |
| Sample Date | | Client Info | | **29 Jan 2024** | 08 Jun 2017 | 21 Apr 2011 |
| Machine Age | mths | Client Info | | **0** | 0 | 0 |
| Oil Age | mths | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **SEVERE** | SEVERE | MARGINAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **51** | --- | --- |
| Iron | ppm | ASTM D5185m | >90 | **27** | 1 | 6 |
| Chromium | ppm | ASTM D5185m | >5 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | **0** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >7 | **2** | 0 | <1 |
| Lead | ppm | ASTM D5185m | >12 | **5** | 0 | <1 |
| Copper | ppm | ASTM D5185m | >30 | **4** | <1 | <1 |
| Tin | ppm | ASTM D5185m | >9 | **<1** | 1 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | <1 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | <1 | <1 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | **0** | 60 | 74 |
| Calcium | ppm | ASTM D5185m | | **0** | 0 | 5 |
| Phosphorus | ppm | ASTM D5185m | | ▲ **233** | 50 | 2 |
| Zinc | ppm | ASTM D5185m | | ▲ **34** | 2 | 2 |

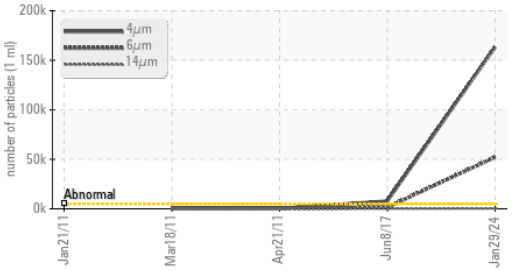
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >60 | **16** | 17 | 3 |
| Sodium | ppm | ASTM D5185m | | **0** | 3 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 1 | 4 |
| Water | % | ASTM D6304 | >.1 | **0.007** | 0.028 | ▲ 0.083 |
| ppm Water | ppm | ASTM D6304 | >1000 | **72** | 280 | ▲ 830 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **163217** | 7897 | 461 |
| Particles >6µm | | ASTM D7647 | >1300 | **52133** | 1512 | 251 |
| Particles >14µm | | ASTM D7647 | >160 | **325** | ▲ 106 | 42 |
| Particles >21µm | | ASTM D7647 | >40 | **76** | ▲ 30 | 14 |
| Particles >38µm | | ASTM D7647 | >10 | **3** | 13 | 2 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 3 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **25/23/16** | 20/18/14 | 16/15/13 |

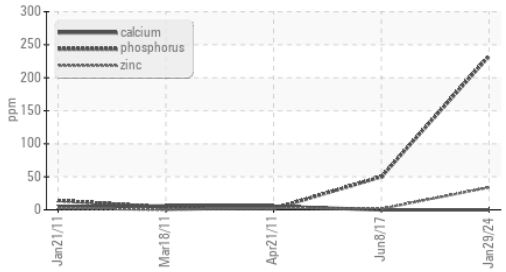
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.25 | **0.63** | 0.377 | 0.517 |

# OIL ANALYSIS REPORT

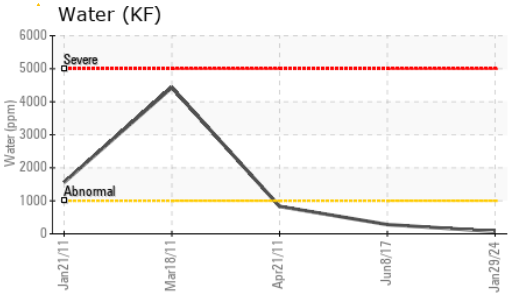
Particle Trend



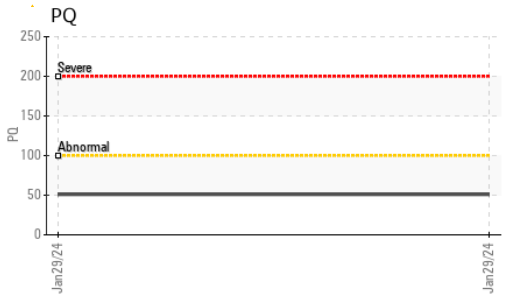

Additives



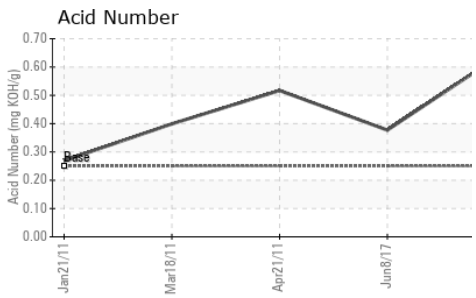

Water (KF)




PQ




Acid Number



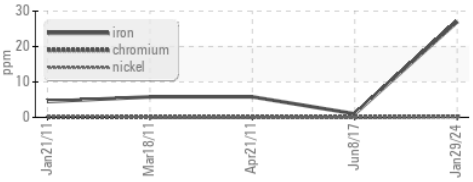

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
|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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 150 | ▲ **70.4** | 144.3 | 149.2 |

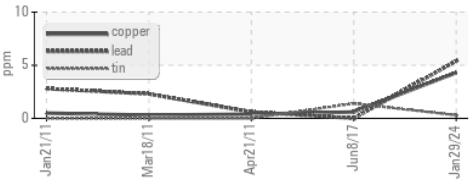
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |
| MPC | | | *no image* | *no image* | *no image* |

GRAPHS

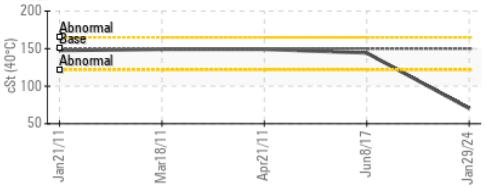
Ferrous Alloys



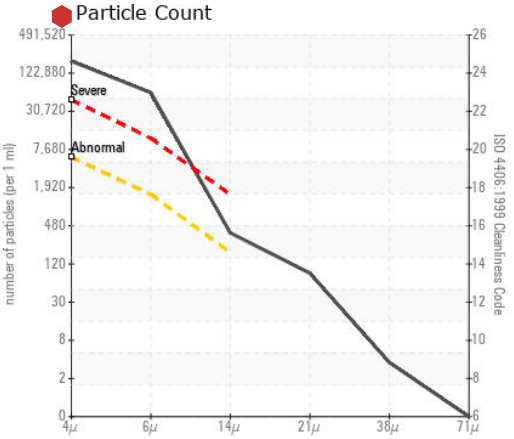

Non-ferrous Metals



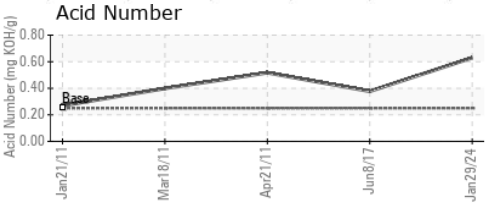

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RP0038094 **Recieved** : 30 Jan 2024
**Lab Number** : 06074731 **Diagnosed** : 01 Feb 2024
**Unique Number** : 10856822 **Diagnostician** : Jonathan Hester
**Test Package** : IND 2 ( Additional Tests: PQ, 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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