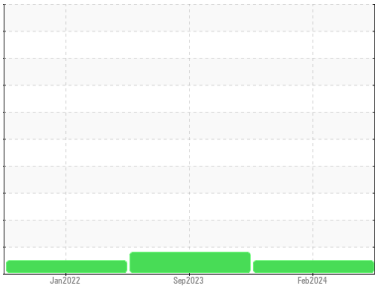
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Area
**OKLAHOMA/102**
Machine Id
**45.63L [OKLAHOMA^102]**
Component
**Hydraulic System**
Fluid
**MOBIL MOBILTRANS AST 30 (24 GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

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

**Contamination**
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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 | | **WC0886882** | WC0848884 | WC0584643 |
| Sample Date | | Client Info | | **06 Feb 2024** | 09 Sep 2023 | 14 Jan 2022 |
| Machine Age | hrs | Client Info | | **1755** | 1430 | 11 |
| Oil Age | hrs | Client Info | | **500** | 500 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | Changed | Not Changd |
| Sample Status | | | | **NORMAL** | ATTENTION | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **10** | 8 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **<1** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | 1 | 0 |
| Lead | ppm | ASTM D5185m | >10 | **1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >75 | **7** | 5 | 3 |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

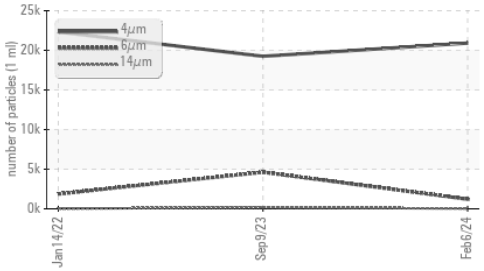
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **2** | 0 | 0 |
| Barium | ppm | ASTM D5185m | | **5** | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | **4** | 10 | 2 |
| Calcium | ppm | ASTM D5185m | | **327** | 405 | 175 |
| Phosphorus | ppm | ASTM D5185m | | **632** | 723 | 684 |
| Zinc | ppm | ASTM D5185m | | **856** | 981 | 951 |
| Sulfur | ppm | ASTM D5185m | | **1912** | 2406 | 1731 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >20 | **3** | 1 | <1 |
| Sodium | ppm | ASTM D5185m | | **0** | 4 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 3 | 0 |

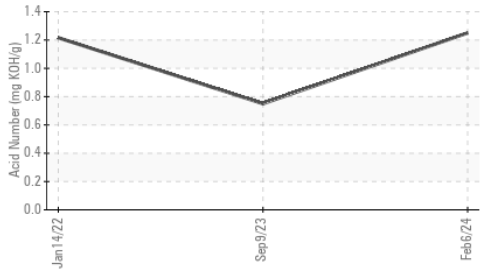
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **20916** | 19244 | 22322 |
| Particles >6µm | | ASTM D7647 | >2500 | **1215** | 4625 | 1866 |
| Particles >14µm | | ASTM D7647 | >640 | **31** | 168 | 21 |
| Particles >21µm | | ASTM D7647 | >160 | **9** | 28 | 6 |
| Particles >38µm | | ASTM D7647 | >40 | **1** | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/18/16 | **22/17/12** | 21/19/15 | 22/18/12 |

# OIL ANALYSIS REPORT

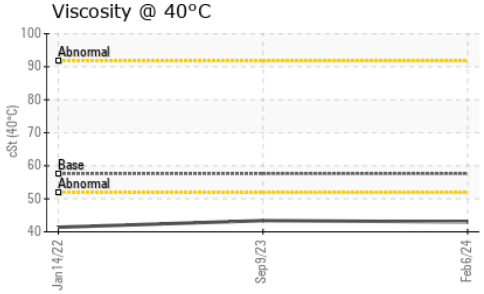
Particle Trend



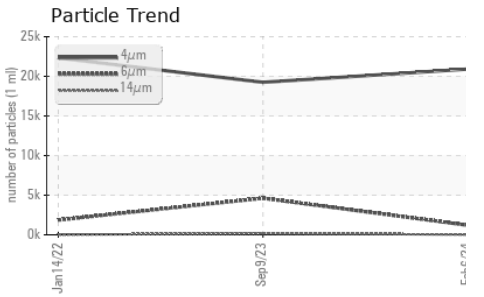

Acid Number




Viscosity @ 40°C




Particle Trend

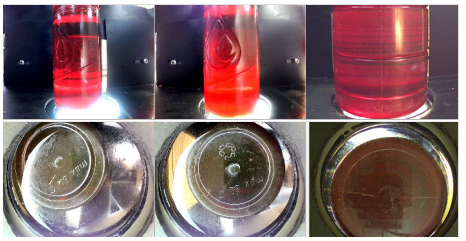



| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **1.25** | 0.75 | 1.216 |

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

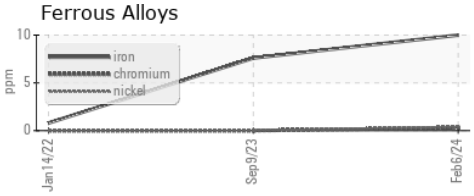
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 57.6 | **43.0** | 43.4 | 41.4 |

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

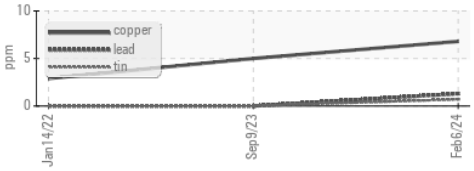


## GRAPHS

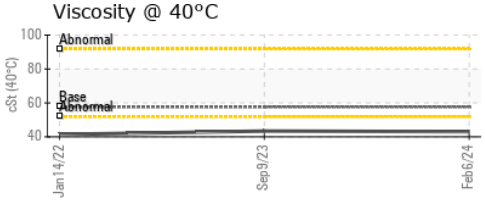
Ferrous Alloys



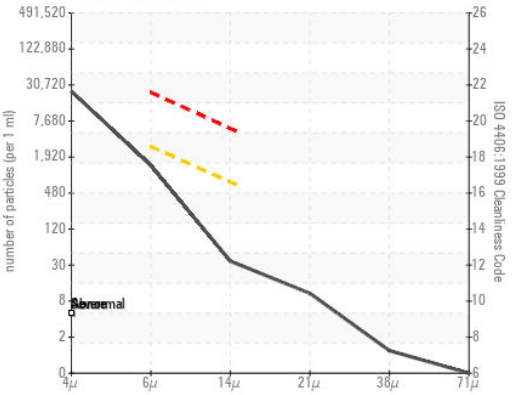

Non-ferrous Metals



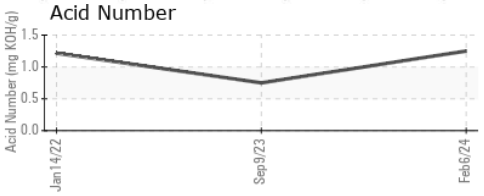

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0886882
**Lab Number** : 06098315
**Unique Number** : 10896545
**Test Package** : CONST

**Received** : 23 Feb 2024
**Tested** : 26 Feb 2024
**Diagnosed** : 26 Feb 2024 - Don Baldridge

**SHERWOOD CONSTRUCTION CO INC**
3219 WEST MAY ST
WICHITA, KS
US 67213
Contact: SHAWN SOUTH
shawn.south@sherwood.net
T: x:
F: x:

*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
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*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*