

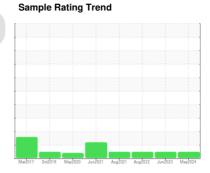




OKLAHOMA/102/GB - OTHER SERVICE 64.25L [OKLAHOMA^102^GB - OTHER SERVICE]

Hydraulic System

MOBIL MOBILTRANS AST 30 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

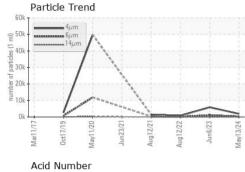
Fluid Condition

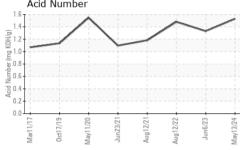
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

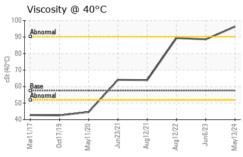
| Sample Date Client Info 13 May 2024 06 Jun 2023 12 Aug 2022 | ` , | | | | | | |
|---|-----------------|-------|-------------|------------|-------------|-------------|-------------|
| Sample Date Client Info 13 May 2024 06 Jun 2023 12 Aug 2022 Machine Age hrs Client Info 4046 3747 3551 Oil Age hrs Client Info 73 899 368 Oil Changed Client Info N/A Changed NA Sample Status NORMAL NORMAL NORMAL 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 >10 0 0 <1 | SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
| Machine Age hrs Client Info MoRA MoRA MoRA Normal Normal | Sample Number | | Client Info | | WC0857497 | WC0800858 | WC0649307 |
| Oil Age | Sample Date | | Client Info | | 13 May 2024 | 06 Jun 2023 | 12 Aug 2022 |
| Coli Changed Client Info N/A NORMAL NORMAL | Machine Age | hrs | Client Info | | 4046 | 3747 | 3551 |
| CONTAMINATION method limit/base current history1 history2 | Oil Age | hrs | Client Info | | 73 | 899 | 368 |
| Water WC Method So.1 NEG NEG NEG NEG | Oil Changed | | Client Info | | | 0 | |
| Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 3 5 4 Chromium ppm ASTM D5185m >10 0 0 <1 | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 3 5 4 Chromium ppm ASTM D5185m >10 0 0 <1 Nickel ppm ASTM D5185m >10 0 0 0 Silver ppm ASTM D5185m <1 0 <1 <1 Aluminum ppm ASTM D5185m >10 1 1 2 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <th>CONTAMINATION</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th> | CONTAMINATION | | method | limit/base | current | history1 | history2 |
| Chromium | Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Chromium ppm ASTM D5185m >10 0 0 <1 | WEAR METALS | | method | limit/base | current | history1 | history2 |
| Nickel | Iron | ppm | ASTM D5185m | >20 | 3 | 5 | 4 |
| Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m <1 | Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Silver | Nickel | ppm | ASTM D5185m | >10 | | | |
| Aluminum | Titanium | ppm | | | - | | |
| Lead ppm ASTM D5185m >10 0 <1 | Silver | ppm | ASTM D5185m | | | | |
| Copper ppm ASTM D5185m >75 4 2 2 Tin ppm ASTM D5185m >10 <1 0 0 Antimony ppm ASTM D5185m •••• Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 36 31 39 Barium ppm ASTM D5185m 0 2 <1 Molybdenum ppm ASTM D5185m <1 1 1 Mangaese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 19 16 18 Calcium ppm ASTM D5185m 993 1005 951 Zinc ppm ASTM D5185m <th>Aluminum</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> | Aluminum | | | | | | |
| Tin | Lead | | | | | | |
| Antimony ppm ASTM D5185m | | ppm | | | - | | |
| Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 <1 | | | | >10 | | | |
| Cadmium ppm ASTM D5185m 0 0 <1 | • | | | | | | |
| ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 36 31 39 Barium ppm ASTM D5185m 0 2 <1 Molybdenum ppm ASTM D5185m <1 1 1 Manganese ppm ASTM D5185m 19 16 18 Magnesium ppm ASTM D5185m 19 16 18 Calcium ppm ASTM D5185m 2928 2959 2834 Phosphorus ppm ASTM D5185m 993 1005 951 Zinc ppm ASTM D5185m 1206 1240 1211 Sulfur ppm ASTM D5185m 5371 5393 4703 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 3 0 2 Potassium ppm ASTM D5185m 3 0 | | | | | | | |
| Boron ppm ASTM D5185m 36 31 39 Barium ppm ASTM D5185m 0 2 <1 | Cadmium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Barium ppm ASTM D5185m 0 2 <1 | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185m <1 | Boron | ppm | ASTM D5185m | | 36 | 31 | 39 |
| Manganese ppm ASTM D5185m <1 | Barium | ppm | ASTM D5185m | | 0 | 2 | <1 |
| Magnesium ppm ASTM D5185m 19 16 18 Calcium ppm ASTM D5185m 2928 2959 2834 Phosphorus ppm ASTM D5185m 993 1005 951 Zinc ppm ASTM D5185m 1206 1240 1211 Sulfur ppm ASTM D5185m 5371 5393 4703 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 5 Sodium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 22500 246 1127 138 Particles >6μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D76 | Molybdenum | ppm | ASTM D5185m | | <1 | 1 | 1 |
| Calcium ppm ASTM D5185m 2928 2959 2834 Phosphorus ppm ASTM D5185m 993 1005 951 Zinc ppm ASTM D5185m 1206 1240 1211 Sulfur ppm ASTM D5185m 5371 5393 4703 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 5 Sodium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 246 1127 138 Particles >21μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >40 0 0 2 <th>Manganese</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th><1</th> <th>0</th> <th><1</th> | Manganese | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Phosphorus ppm ASTM D5185m 993 1005 951 Zinc ppm ASTM D5185m 1206 1240 1211 Sulfur ppm ASTM D5185m 5371 5393 4703 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 5 Sodium ppm ASTM D5185m >20 0 2 0 Potassium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 246 1127 138 Particles >6μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >71μm ASTM D7647 >40 0 0 2 Particles > | Magnesium | ppm | ASTM D5185m | | 19 | 16 | |
| Zinc ppm ASTM D5185m 1206 1240 1211 | Calcium | ppm | | | | | |
| Sulfur ppm ASTM D5185m 5371 5393 4703 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 5 Sodium ppm ASTM D5185m 3 0 2 Potassium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | | | | | | | |
| CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 5 Sodium ppm ASTM D5185m 3 0 2 Potassium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | | | | | | | |
| Silicon ppm ASTM D5185m >20 6 5 5 Sodium ppm ASTM D5185m 3 0 2 Potassium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | | ppm | ASTM D5185m | | 5371 | 5393 | 4703 |
| Sodium ppm ASTM D5185m 3 0 2 Potassium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Potassium ppm ASTM D5185m >20 0 2 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | Silicon | ppm | ASTM D5185m | >20 | 6 | 5 | 5 |
| FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | Sodium | ppm | ASTM D5185m | | 3 | 0 | 2 |
| Particles >4μm ASTM D7647 1896 5882 820 Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 1 | Potassium | ppm | ASTM D5185m | >20 | 0 | 2 | 0 |
| Particles >6μm ASTM D7647 >2500 246 1127 138 Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 1 | FLUID CLEANLINE | ESS | method | limit/base | current | history1 | history2 |
| Particles >14μm ASTM D7647 >640 7 51 13 Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | Particles >4µm | | ASTM D7647 | | 1896 | | 820 |
| Particles >21μm ASTM D7647 >160 1 12 4 Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | Particles >6µm | | ASTM D7647 | >2500 | 246 | | 138 |
| Particles >38μm ASTM D7647 >40 0 0 2 Particles >71μm ASTM D7647 >10 0 0 1 | Particles >14μm | | ASTM D7647 | >640 | 7 | | |
| Particles >71μm ASTM D7647 >10 0 0 | Particles >21μm | | | >160 | | 12 | |
| | Particles >38μm | | | | | 0 | |
| Oil Cleanliness ISO 4406 (c) >/18/16 18/15/10 20/17/13 17/14/11 | Particles >71µm | | | | | | 1 |
| | | | | | | | |

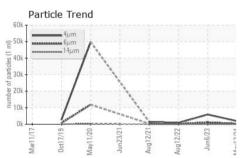


OIL ANALYSIS REPORT



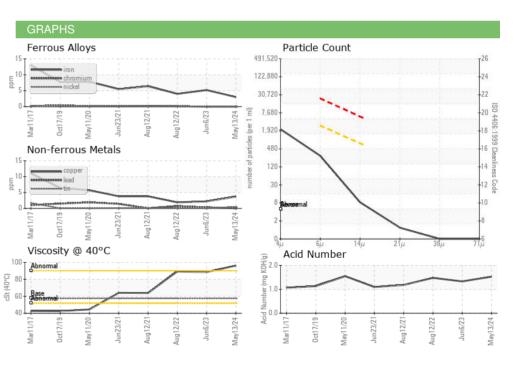






| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
|-------------------------|----------|------------|------------|---------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.53 | 1.33 | 1.48 |
| VISUAL | | method | limit/base | current | history1 | history2 |
| 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 | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERT | TES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 57.6 | 96.3 | 88.6 | 89.4 |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |

| Color | |
|--------|--|
| Bottom | |







Certificate 12367

Laboratory Sample No.

Test Package : CONST

: WC0857497 Lab Number : 06184903 Unique Number : 11036229

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 May 2024 **Tested** : 22 May 2024 Diagnosed

: 22 May 2024 - Don Baldridge

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST

WICHITA, KS US 67213 Contact: LOUIS BRESHEARS

louis.breshears@sherwood.net T:

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)

F: