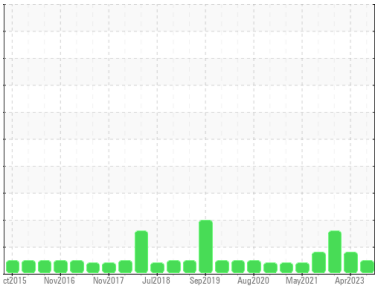
# OIL ANALYSIS REPORT

Area
## OKLAHOMA/3/EG - EXCAVATOR
Machine Id
## 20.69L [OKLAHOMA^3^EG - EXCAVATOR]
Component
**Hydraulic System**
Fluid
**MOBIL MOBILTRANS AST 30 (--- GAL)**

**Sample Rating Trend**




**NORMAL**

## 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 | | **WC0834146** | WC0808045 | WC0769601 |
| Sample Date | | Client Info | | **05 Aug 2023** | 28 Apr 2023 | 13 Feb 2023 |
| Machine Age | hrs | Client Info | | **12061** | 11496 | 11082 |
| Oil Age | hrs | Client Info | | **11082** | 11082 | 7187 |
| Oil Changed | | Client Info | | **N/A** | N/A | Changed |
| Sample Status | | | | **NORMAL** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **6** | 8 | 8 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **3** | <1 | 2 |
| Lead | ppm | ASTM D5185m | >10 | **<1** | <1 | 0 |
| Copper | ppm | ASTM D5185m | >75 | **2** | <1 | 0 |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 2 | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **106** | 82 | 71 |
| Barium | ppm | ASTM D5185m | | **1** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **1** | 2 | 1 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | **28** | 26 | 21 |
| Calcium | ppm | ASTM D5185m | | **3195** | 3305 | 3251 |
| Phosphorus | ppm | ASTM D5185m | | **1022** | 1113 | 1010 |
| Zinc | ppm | ASTM D5185m | | **1263** | 1414 | 1250 |
| Sulfur | ppm | ASTM D5185m | | **4764** | 5664 | 5126 |

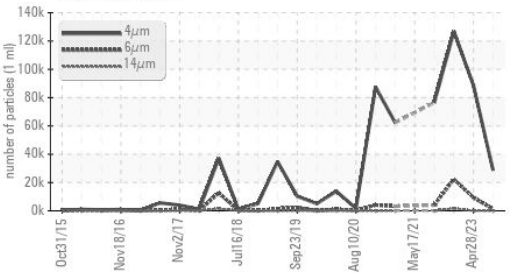
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >20 | **12** | 10 | 9 |
| Sodium | ppm | ASTM D5185m | | **3** | 4 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 2 | 0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **28704** | 88486 | 126835 |
| Particles >6µm | | ASTM D7647 | >2500 | **1230** | ▲ 9350 | ▲ 22328 |
| Particles >14µm | | ASTM D7647 | >640 | **77** | 54 | ▲ 1609 |
| Particles >21µm | | ASTM D7647 | >160 | **18** | 10 | ▲ 371 |
| Particles >38µm | | ASTM D7647 | >40 | **0** | 1 | 3 |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/18/16 | **22/17/13** | ▲ 24/20/13 | ▲ 24/22/18 |

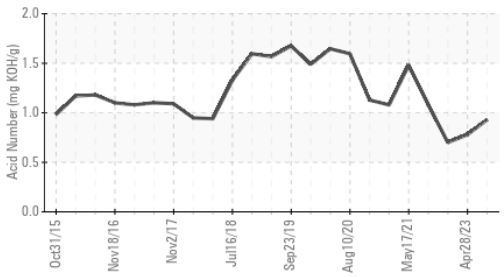
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.93** | 0.78 | 0.70 |

# OIL ANALYSIS REPORT

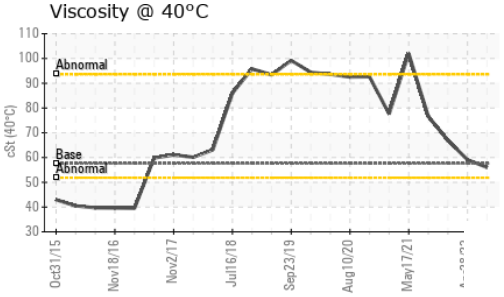
Particle Trend



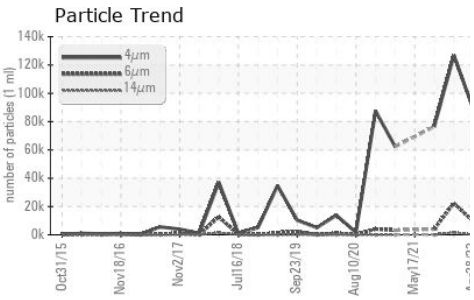

Acid Number




Viscosity @ 40°C



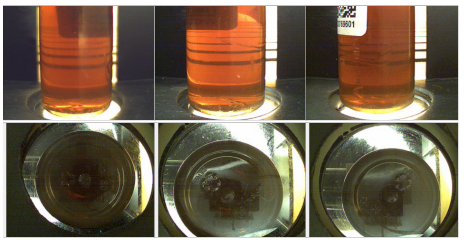

Particle Trend




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

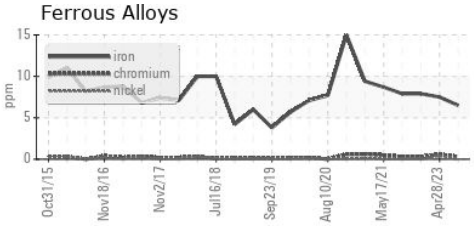
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 57.6 | **56.0** | 59.1 | 66.9 |

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

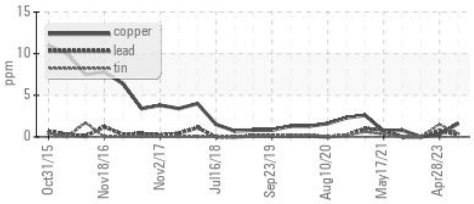


## GRAPHS

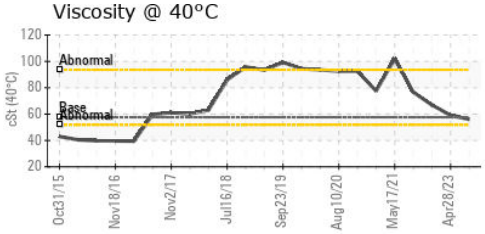
Ferrous Alloys



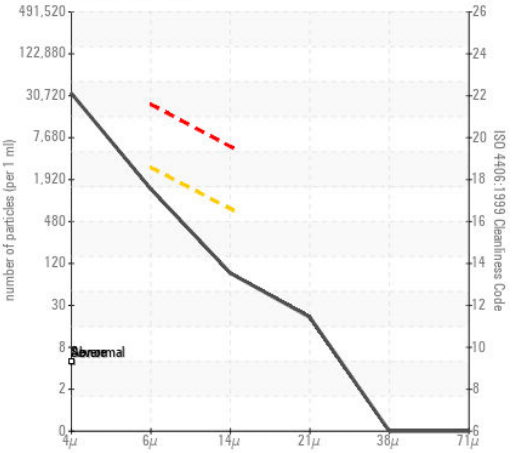

Non-ferrous Metals



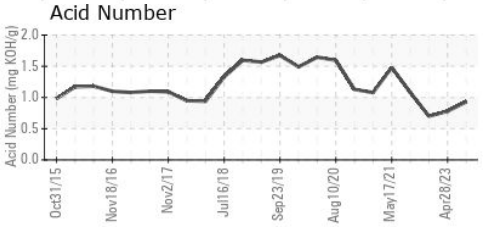

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0834146
**Lab Number** : 05923310
**Unique Number** : 10603257
**Test Package** : CONST

**Received** : 14 Aug 2023
**Diagnosed** : 15 Aug 2023
**Diagnostician** : Don Baldridge

*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)*


**SHERWOOD CONSTRUCTION CO INC**
3219 WEST MAY ST
WICHITA, KS
US 67213
Contact: DOUG KING
doug.king@sherwood.net
T: (316)617-3161
F: x: