



OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Area
OKLAHOMA/102
Machine Id
20.412L [OKLAHOMA^102]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0834045 | WC0778415 | WC0769725 |
| Sample Date | | Client Info | | 15 Aug 2023 | 27 Jan 2023 | 02 Jan 2023 |
| Machine Age | hrs | Client Info | | 1060 | 542 | 413 |
| Oil Age | hrs | Client Info | | 518 | 542 | 413 |
| Filter Age | hrs | Client Info | | 518 | 542 | 413 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | ATTENTION |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|-------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 20 | 9 | 40 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | <1 | 4 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 18 | 11 | 67 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 2 | 1 | 7 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

There is no indication of any contamination in the oil.

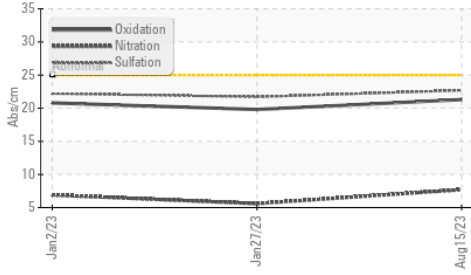
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 7 | 4 | 15 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | 0.8 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | 0.1 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.7 | 5.6 | 6.9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.7 | 21.7 | 22.2 |
| 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 | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

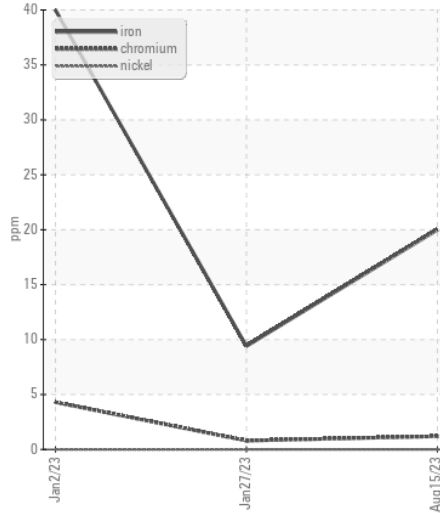
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 2 | 2 | 2 |
| Boron | ppm | ASTM D5185m | 0 | 38 | 56 | 37 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 44 | 38 | 38 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 2 |
| Magnesium | ppm | ASTM D5185m | 0 | 550 | 471 | 454 |
| Calcium | ppm | ASTM D5185m | | 1797 | 1607 | 1617 |
| Phosphorus | ppm | ASTM D5185m | | 731 | 707 | 840 |
| Zinc | ppm | ASTM D5185m | | 910 | 858 | 1042 |
| Sulfur | ppm | ASTM D5185m | | 2853 | 2883 | 3315 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 21.3 | 19.8 | 20.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 9.5 | 10.5 | 9.3 |
| Visc @ 100°C | cSt | ASTM D445 | 14 | 13.3 | 12.8 | 11.0 |

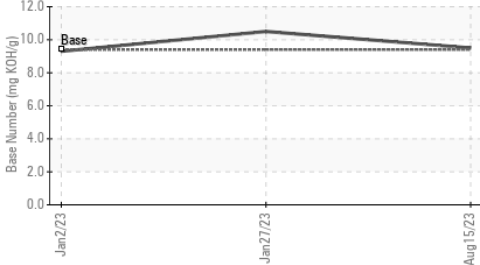
FT-IR (Direct Trend)



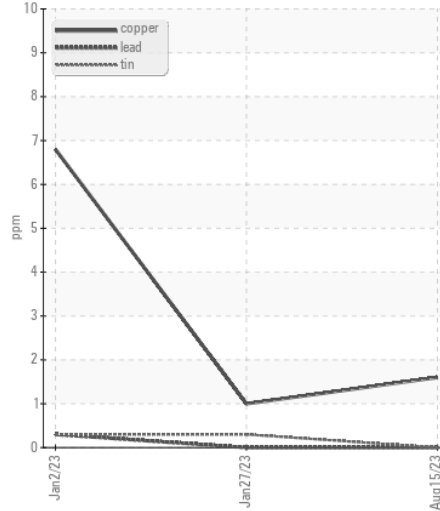
Ferrous Alloys



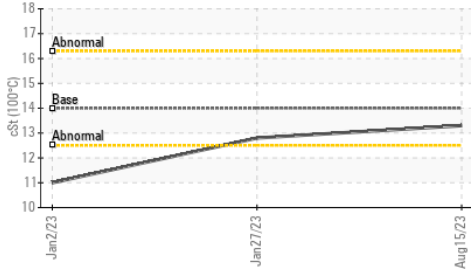
Base Number



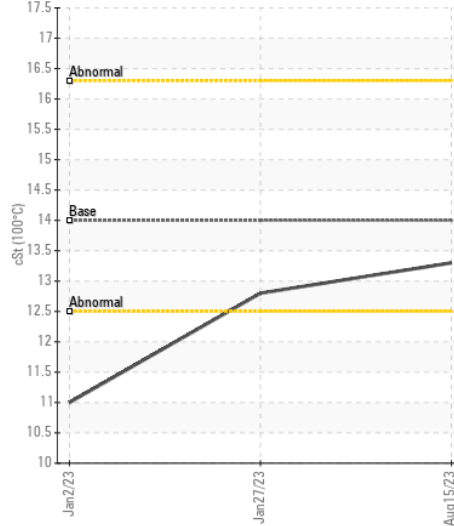
Non-ferrous Metals



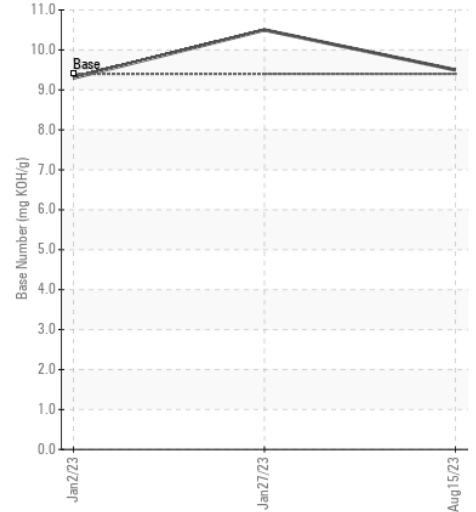
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0834045 **Received** : 29 Aug 2023
Lab Number : 05937122 **Tested** : 29 Aug 2023
Unique Number : 10622393 **Diagnosed** : 29 Aug 2023 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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

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)

T: x:
 F: x: