



OIL ANALYSIS REPORT

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



Area
OKLAHOMA/102
Machine Id
38.86 [OKLAHOMA^102]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0908906 | WC0821812 | WC0800818 |
| Sample Date | | Client Info | | 05 Jun 2024 | 10 Jul 2023 | 28 Mar 2023 |
| Machine Age | hrs | Client Info | | 5691 | 4733 | 4155 |
| Oil Age | hrs | Client Info | | 478 | 320 | 119 |
| Filter Age | hrs | Client Info | | 478 | 320 | 119 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 15 | 10 | 9 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | <1 |
| Lead | ppm | ASTM D5185m | >40 | 2 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 5 | 4 | 7 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 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.

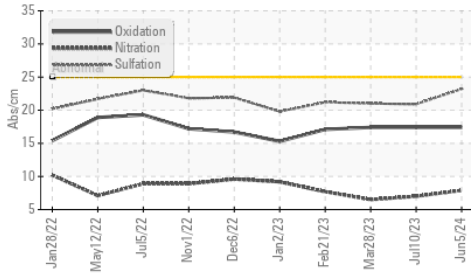
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 6 | 5 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 0 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.5 | 0.3 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.9 | 7.0 | 6.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 23.2 | 20.9 | 21.0 |
| 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

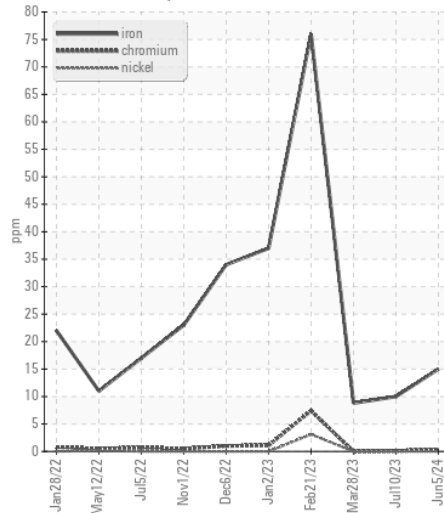
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 3 | 2 | 2 |
| Boron | ppm | ASTM D5185m | 0 | 29 | 30 | 46 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 23 | 33 | 35 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 305 | 410 | 390 |
| Calcium | ppm | ASTM D5185m | | 2537 | 2143 | 1892 |
| Phosphorus | ppm | ASTM D5185m | | 942 | 794 | 735 |
| Zinc | ppm | ASTM D5185m | | 1120 | 966 | 862 |
| Sulfur | ppm | ASTM D5185m | | 4062 | 3399 | 2786 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 17.4 | 17.4 | 17.4 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | 10.5 | 9.9 | 9.8 |
| Visc @ 100°C | cSt | ASTM D445 | 14 | 13.3 | 12.6 | 12.6 |

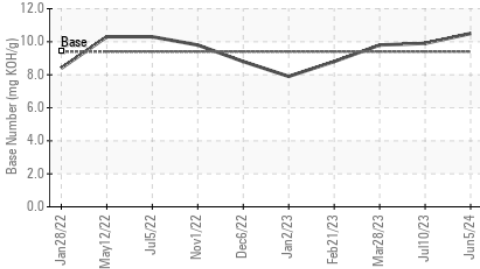
FT-IR (Direct Trend)



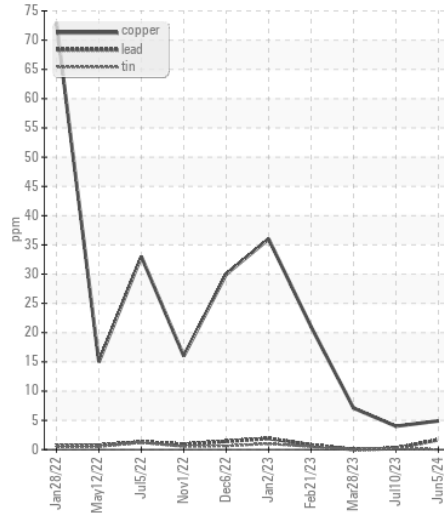
Ferrous Alloys



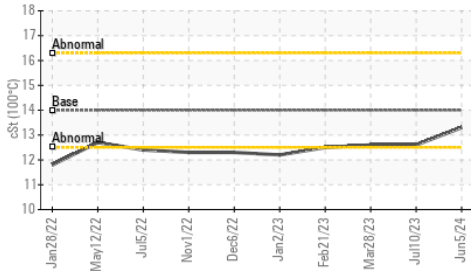
Base Number



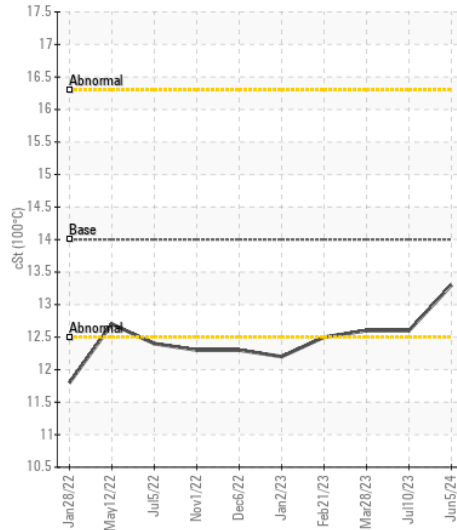
Non-ferrous Metals



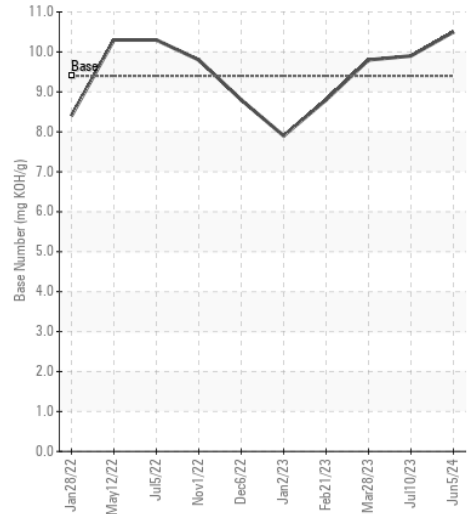
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0908906 **Received** : 20 Jun 2024
Lab Number : 06215623 **Tested** : 21 Jun 2024
Unique Number : 11088487 **Diagnosed** : 22 Jun 2024 - Don Baldrige
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: