



OIL ANALYSIS REPORT

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



Area
(EQ4541) N
Machine Id
Webster WTP, CAT 1500kW (S/N EBG01074)
Component
Diesel Engine
Fluid
KENDALL SHP 5W40 Diesel Engine Oil (83 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0934061 | WC0810879 | WC0696100 |
| Sample Date | | Client Info | | 08 May 2024 | 18 May 2023 | 11 May 2022 |
| Machine Age | hrs | Client Info | | 129 | 105 | 102 |
| Oil Age | hrs | Client Info | | 129 | 105 | 102 |
| Filter Age | hrs | Client Info | | 0 | 105 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 11 | 6 | 9 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | 5 | 5 | 5 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | <1 | 1 |
| Lead | ppm | ASTM D5185m | >40 | 2 | 1 | 1 |
| Copper | ppm | ASTM D5185m | >330 | 37 | 26 | 25 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <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

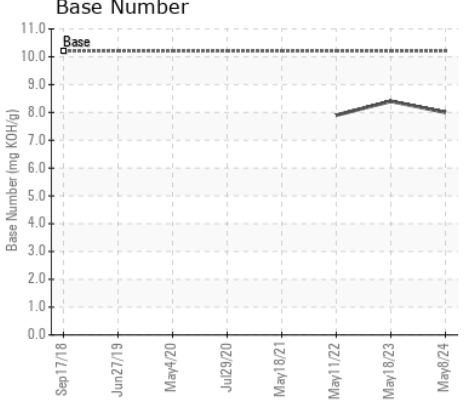
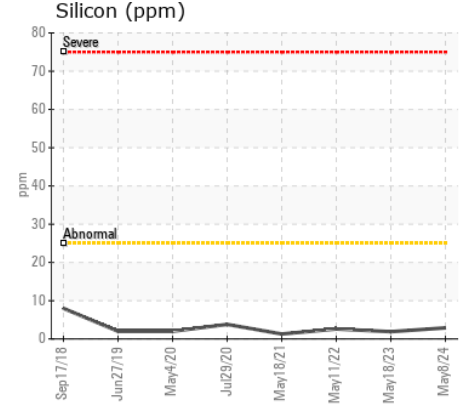
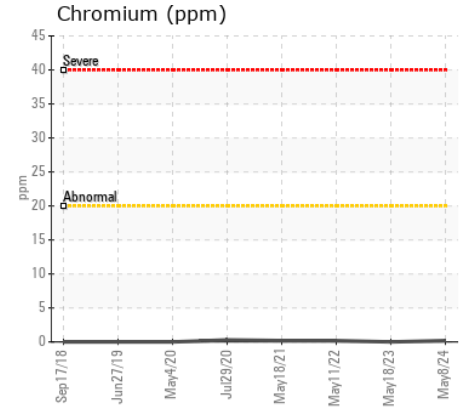
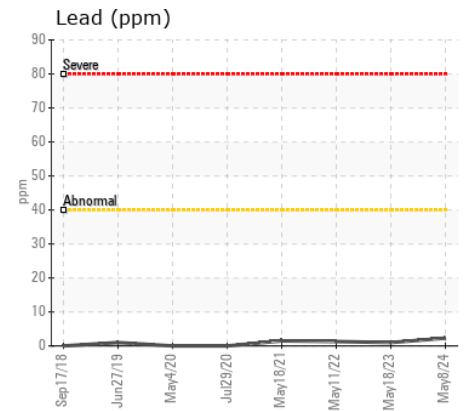
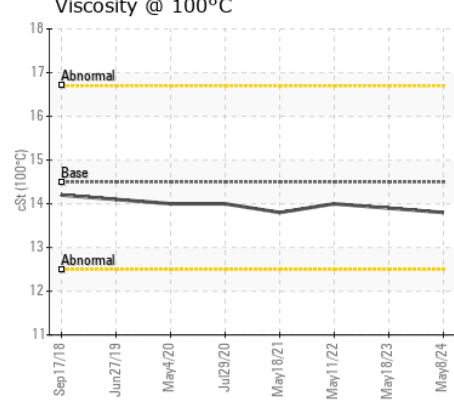
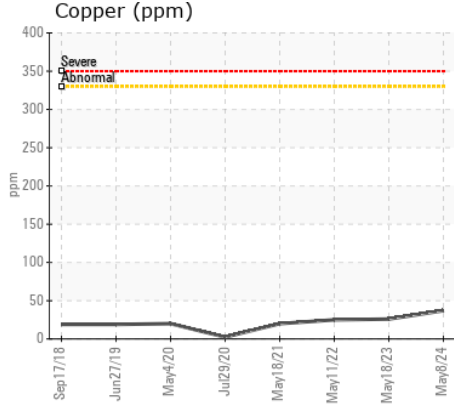
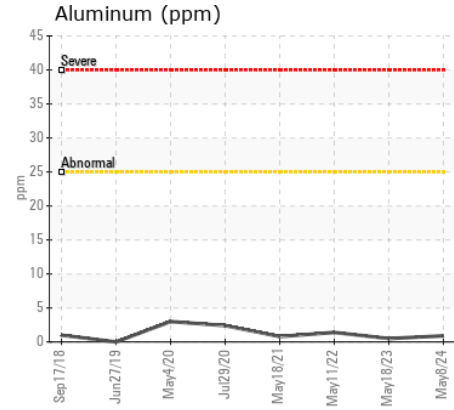
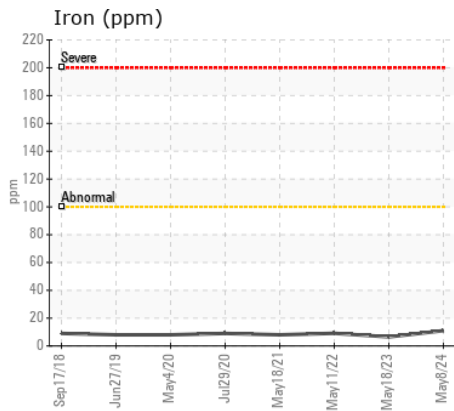
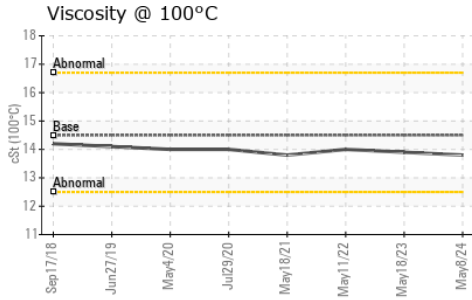
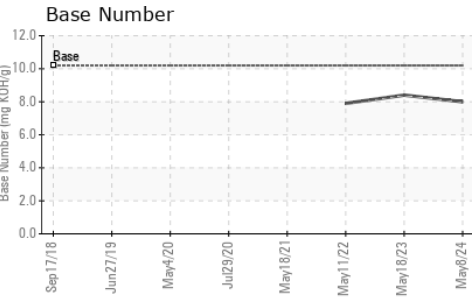
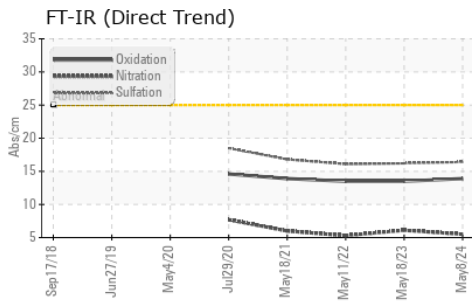
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 3 | 2 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | <1 | <1 |
| 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 | 0.1 | 0 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 5.5 | 6.1 | 5.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 16.4 | 16.2 | 16.1 |
| 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 | | 12 | 11 | 12 |
| Boron | ppm | ASTM D5185m | | 107 | 113 | 107 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 8 | 6 | 6 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 190 | 136 | 163 |
| Calcium | ppm | ASTM D5185m | | 2324 | 2176 | 2154 |
| Phosphorus | ppm | ASTM D5185m | | 1114 | 985 | 1068 |
| Zinc | ppm | ASTM D5185m | 1288 | 1327 | 1225 | 1197 |
| Sulfur | ppm | ASTM D5185m | | 5072 | 4378 | 3659 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.9 | 13.5 | 13.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 8.0 | 8.4 | 7.9 |
| Visc @ 100°C | cSt | ASTM D445 | 14.5 | 13.8 | 13.9 | 14.0 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0934061 **Received** : 13 May 2024
Lab Number : 06176918 **Tested** : 14 May 2024
Unique Number : 11022971 **Diagnosed** : 14 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

MONROE COUNTY WATER AUTHORITY
 4799 DEWEY AVE
 ROCHESTER, NY
 US 14612
 Contact: SCOTT TRAIL
 scott.trail@mcwa.com
 T: (585)775-5257
 F:

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)