



OIL ANALYSIS REPORT

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

Machine Id
PETERBILT 567 X43 (S/N 308246)
 Component
Diesel Engine
 Fluid
VALVOLINE PREMIUM BLUE (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0849048 | WC0731569 | WC0486373 |
| Sample Date | | Client Info | | 22 Aug 2023 | 08 Aug 2022 | 06 Jan 2021 |
| Machine Age | hrs | Client Info | | 11597 | 10601 | 9607 |
| Oil Age | hrs | Client Info | | 996 | 994 | 1036 |
| Filter Age | hrs | Client Info | | 996 | 994 | 1036 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >165 | 25 | 33 | 16 |
| Chromium | ppm | ASTM D5185m | >5 | 1 | 1 | 1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 9 | 14 | 4 |
| Lead | ppm | ASTM D5185m | >150 | 3 | 4 | <1 |
| Copper | ppm | ASTM D5185m | >90 | 3 | 5 | 2 |
| Tin | ppm | ASTM D5185m | >5 | <1 | 2 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

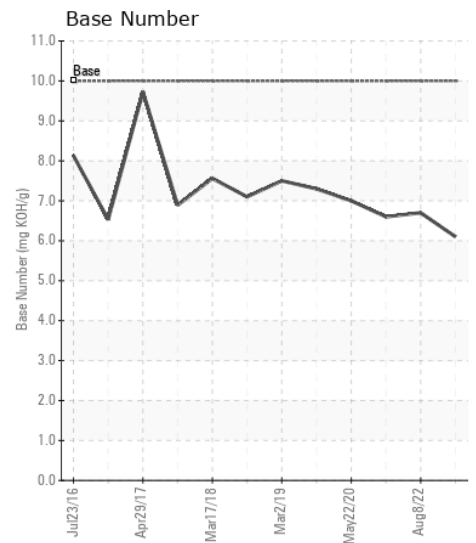
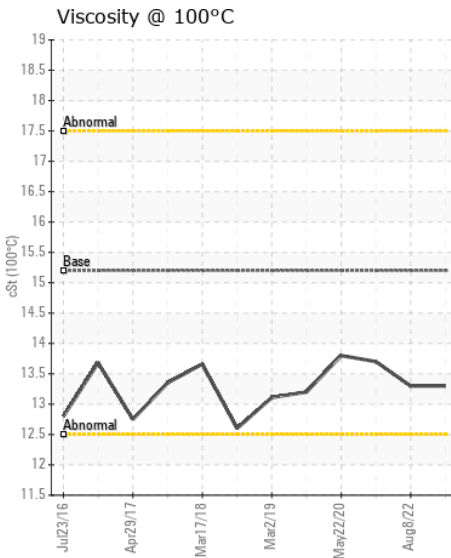
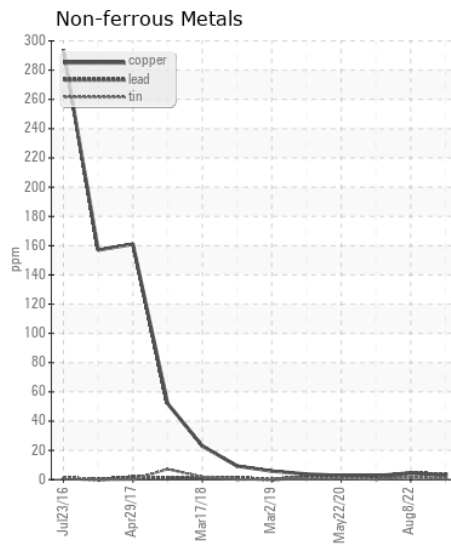
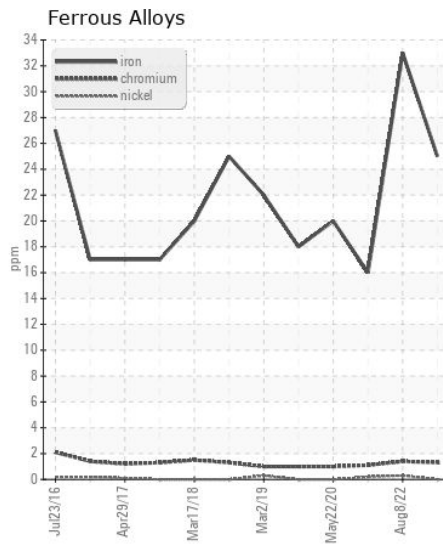
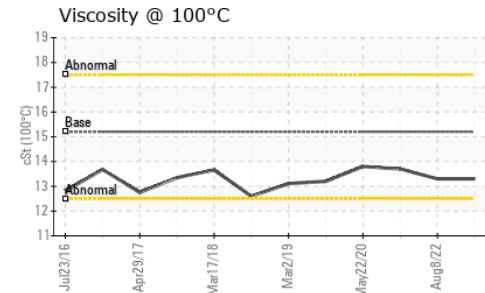
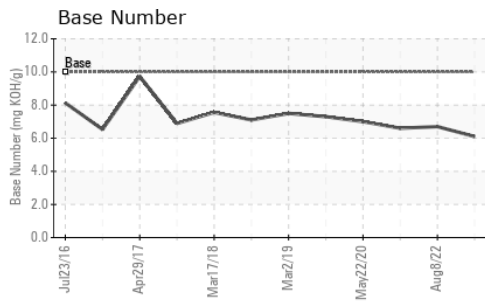
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >35 | 7 | 6 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | 39 | ▲ 53 | 9 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >7.5 | 0.7 | 1.1 | 1.4 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 11.7 | 12.3 | 11.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.9 | 26.3 | 24.9 |
| 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 | | 4 | 2 | 2 |
| Boron | ppm | ASTM D5185m | 2.9 | 31 | 22 | 16 |
| Barium | ppm | ASTM D5185m | 0.1 | 2 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | 64 | 23 | 14 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 18 | 688 | 156 | 151 |
| Calcium | ppm | ASTM D5185m | 2936 | 1455 | 1880 | 2272 |
| Phosphorus | ppm | ASTM D5185m | 998 | 732 | 763 | 914 |
| Zinc | ppm | ASTM D5185m | 1095 | 977 | 940 | 1029 |
| Sulfur | ppm | ASTM D5185m | 5469 | 2977 | 2989 | 2925 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 20.4 | 17.8 | 16 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.0 | 6.1 | 6.7 | 6.6 |
| Visc @ 100°C | cSt | ASTM D445 | 15.2 | 13.3 | 13.3 | 13.7 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849048 **Received** : 30 Aug 2023
Lab Number : 05938709 **Tested** : 31 Aug 2023
Unique Number : 10629321 **Diagnosed** : 31 Aug 2023 - Doug Bogart
Test Package : CONST (Additional Tests: TBN)

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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)