

# **OIL ANALYSIS REPORT**

## Sample Rating Trend



# 2007 PETERBILT 9627H

Component

**Hydraulic System** 

CHEVRON DELO 400 MULTIGRADE 15W40 (50 GAL)

## DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| 0 (50 GAL)      |        |              |            |                |                |             |
|-----------------|--------|--------------|------------|----------------|----------------|-------------|
| SAMPLE INFORM   | MATION | method       | limit/base | current        | history1       | history2    |
| Sample Number   |        | Client Info  |            | KL0012919      | KL0012171      | KL0008996   |
| Sample Date     |        | Client Info  |            | 06 Sep 2023    | 03 May 2023    | 08 Jul 2022 |
| Machine Age     | mls    | Client Info  |            | 9722           | 376644         | 360700      |
| Oil Age         | mls    | Client Info  |            | 0              | 0              | 0           |
| Oil Changed     |        | Client Info  |            | N/A            | N/A            | N/A         |
| Sample Status   |        |              |            | ATTENTION      | ATTENTION      | NORMAL      |
| WEAR METALS     |        | method       | limit/base | current        | history1       | history2    |
| Iron            | ppm    | ASTM D5185m  | >20        | 4              | 4              | 4           |
| Chromium        | ppm    | ASTM D5185m  | >10        | <1             | <1             | <1          |
| Nickel          | ppm    | ASTM D5185m  | >10        | 0              | <1             | 0           |
| Titanium        | ppm    | ASTM D5185m  |            | 0              | <1             | 0           |
| Silver          | ppm    | ASTM D5185m  |            | 0              | 0              | 0           |
| Aluminum        | ppm    | ASTM D5185m  | >10        | 1              | 9              | 7           |
| Lead            | ppm    | ASTM D5185m  | >10        | 2              | 2              | 2           |
| Copper          | ppm    | ASTM D5185m  | >75        | 10             | 10             | 10          |
| Tin             | ppm    | ASTM D5185m  | >10        | <1             | 1              | <1          |
| Antimony        | ppm    | ASTM D5185m  |            |                |                |             |
| Vanadium        | ppm    | ASTM D5185m  |            | 0              | <1             | 0           |
| Cadmium         | ppm    | ASTM D5185m  |            | <1             | <1             | <1          |
| ADDITIVES       |        | method       | limit/base | current        | history1       | history2    |
| Boron           | ppm    | ASTM D5185m  | 151        | 340            | 307            | 331         |
| Barium          | ppm    | ASTM D5185m  | 0.4        | 0              | 0              | 0           |
| Molybdenum      | ppm    | ASTM D5185m  | 250        | 55             | 54             | 56          |
| Manganese       | ppm    | ASTM D5185m  |            | <1             | <1             | 0           |
| Magnesium       | ppm    | ASTM D5185m  | 0          | 395            | 421            | 394         |
| Calcium         | ppm    | ASTM D5185m  | 2046       | 1373           | 1430           | 1445        |
| Phosphorus      | ppm    | ASTM D5185m  | 1043       | 892            | 978            | 960         |
| Zinc            | ppm    | ASTM D5185m  | 943        | 1059           | 1150           | 1113        |
| Sulfur          | ppm    | ASTM D5185m  | 5012       | 3483           | 4338           | 4084        |
| CONTAMINANTS    |        | method       | limit/base | current        | history1       | history2    |
| Silicon         | ppm    | ASTM D5185m  | >20        | 6              | 8              | 6           |
| Sodium          | ppm    | ASTM D5185m  |            | <1             | 1              | 0           |
| Potassium       | ppm    | ASTM D5185m  | >20        | 0              | 2              | 1           |
| FLUID CLEANLIN  | IESS   | method       | limit/base | current        | history1       | history2    |
| Particles >4µm  |        | ASTM D7647   |            | 17176          | 18544          | 11121       |
| Particles >6µm  |        | ASTM D7647   | >1300      | <b>1663</b>    | <u></u> 1644   | 1209        |
| Particles >14μm |        | ASTM D7647   | >160       | 22             | 20             | 42          |
| Particles >21µm |        | ASTM D7647   | >40        | 3              | 4              | 10          |
| Particles >38μm |        | ASTM D7647   | >10        | 0              | 0              | 0           |
| Particles >71μm |        | ASTM D7647   | >3         | 0              | 0              | 0           |
| Oil Cleanliness |        | ISO 4406 (c) | >17/14     | <b>▲ 18/12</b> | <u>▲</u> 18/11 | 17/13       |
| FLUID DEGRADA   | TION   | method       | limit/base | current        | history1       | history2    |
| A : I N         | 1/011/ | AOTM D0045   |            | 4.40           | 4.40           |             |

Acid Number (AN)

mg KOH/g ASTM D8045

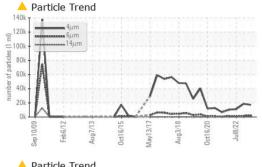
1.40

1.46

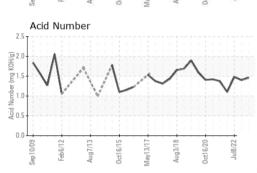
1.48

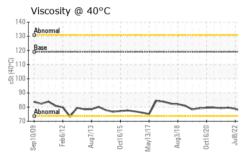


# **OIL ANALYSIS REPORT**



|                           | co.   |                            | 4      | 0       | $\geq$ | 4      | 0       |         |
|---------------------------|-------|----------------------------|--------|---------|--------|--------|---------|---------|
|                           | Parti | cle Tr                     | end    |         |        |        |         |         |
| 140k −<br>≘120k −         | _     | <b>4</b> μπ<br><b>6</b> μπ |        |         |        |        |         |         |
| 100k -                    | 7     | 14µ                        | m ]    |         |        |        |         |         |
| number of particles 40k - |       |                            |        |         | 1      | ~      |         |         |
| 20k                       |       |                            |        | ^       | /_     | \      | 1       | ~       |
| 0k <sup>1</sup>           | 0/01d | eb6/12                     | E1//gn | ct16/15 | v13/17 | 183/18 | ct16/20 | Jul8/22 |

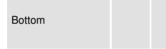




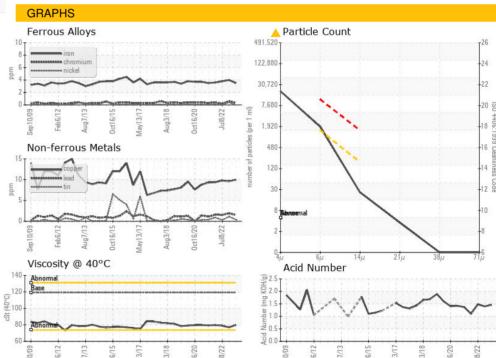
| VISUAL                  |        | method    | limit/base | current | history1 | history2 |
|-------------------------|--------|-----------|------------|---------|----------|----------|
| White Metal             | scalar | *Visual   | NONE       | NONE    | LIGHT    | NONE     |
| Yellow Metal            | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Precipitate             | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Silt                    | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Debris                  | scalar | *Visual   | NONE       | 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    |
| <b>Emulsified Water</b> | 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 | 119        | 79.6    | 77.0     | 78.7     |

| Visc @ 40°C   | cSt | ASTM D445 | 119        | 79.6    | 77.0     | 78.7     |
|---------------|-----|-----------|------------|---------|----------|----------|
| SAMPLE IMAGES |     | method    | limit/base | current | history1 | history2 |

Color











Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : MOB 2

: KL0012919 : 05965352 : 10671903

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 29 Sep 2023 : 02 Oct 2023 Diagnosed Diagnostician : Wes Davis

**VILLAGE OF RUIDOSO** 313 CREE MEADOWS DR RUIDOSO, NM US 88355

Contact: JERRY PARSONS jerryparsons@ruidoso-nm.gov

T: (575)257-1702

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)

F: x: