



# OIL ANALYSIS REPORT

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

Area  
**Rockaway**  
Machine Id  
**PETERBILT 6671**  
Component  
**Diesel Engine**  
Fluid  
**GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0840416</b>   | WC0840418   | WC0774748   |
| Sample Date    |     | Client Info |           | <b>15 Jan 2024</b> | 06 Nov 2023 | 07 Sep 2023 |
| Machine Age    | hrs | Client Info |           | <b>9062865</b>     | 90628       | 8671        |
| Oil Age        | hrs | Client Info |           | <b>90628</b>       | 8671        | 8671        |
| Filter Age     | hrs | Client Info |           | <b>90628</b>       | 8671        | 8671        |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

Metal levels are typical for a new component breaking in.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >110 | <b>4</b>     | 7    | 11   |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | <1   | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | <1   | 0    |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>2</b>     | 2    | <1   |
| Lead         | ppm    | ASTM D5185m | >45  | <b>1</b>     | <1   | <1   |
| Copper       | ppm    | ASTM D5185m | >85  | <b>&lt;1</b> | 3    | 1    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

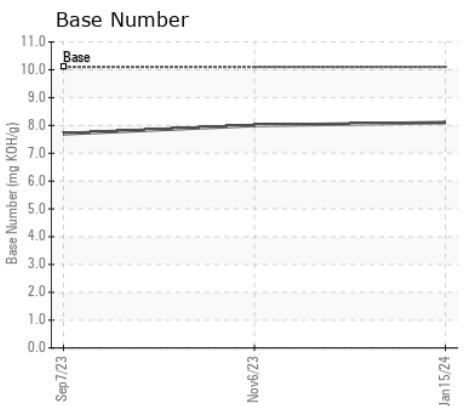
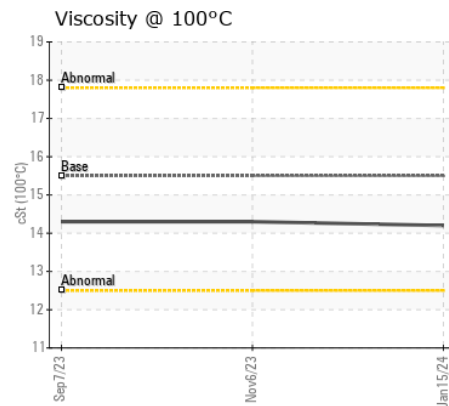
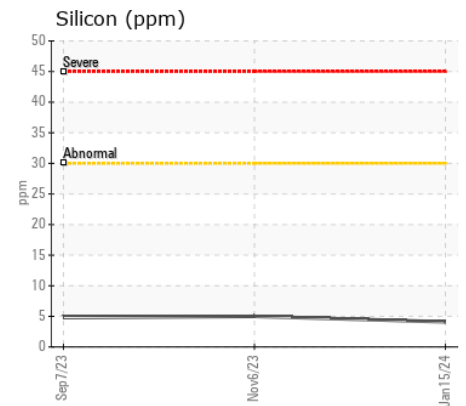
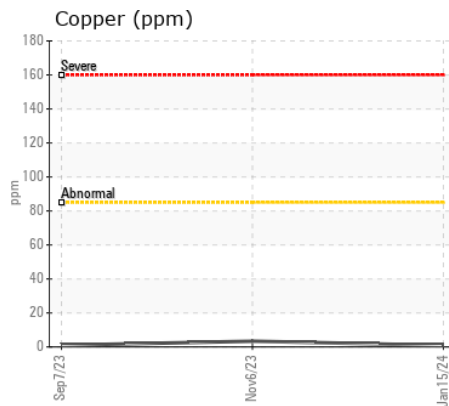
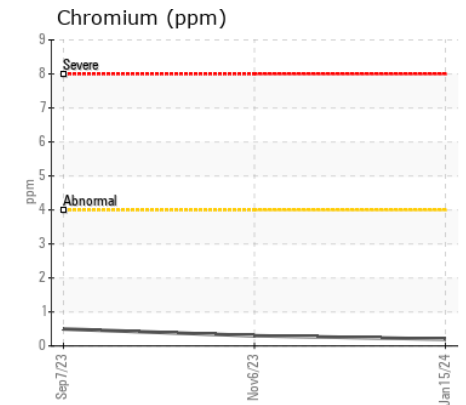
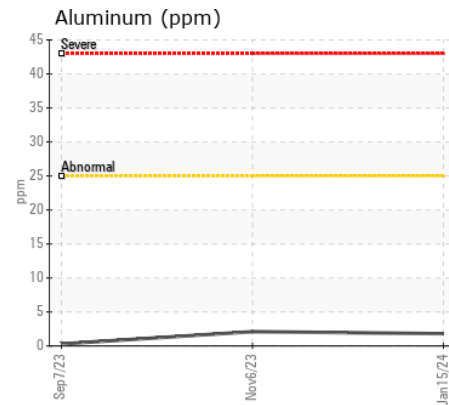
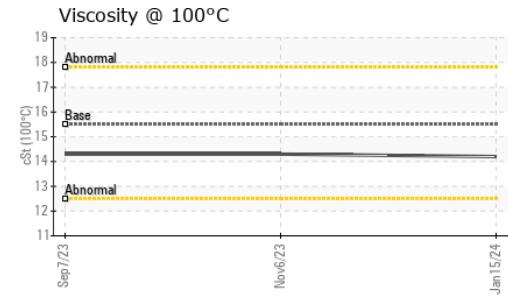
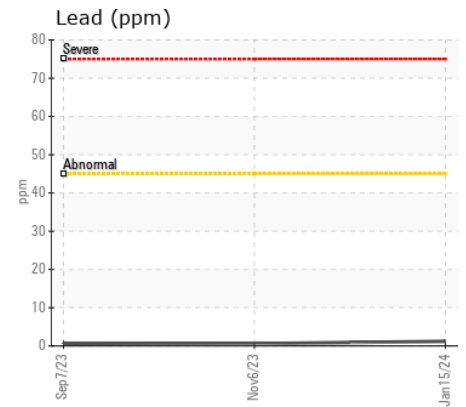
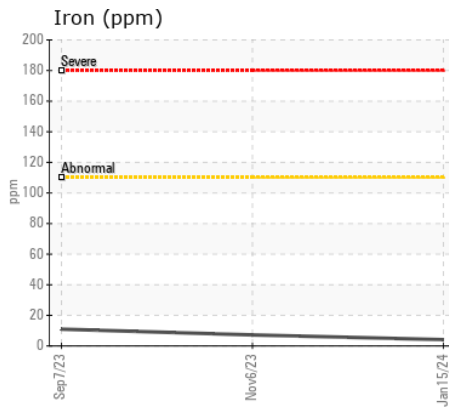
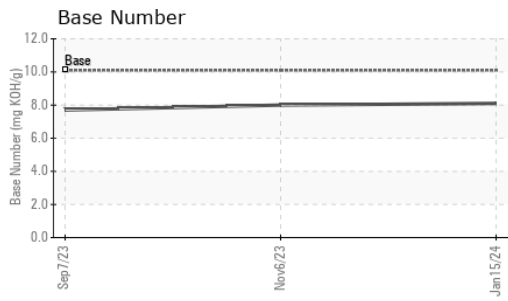
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >30   | <b>4</b>       | 5     | 5     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>3</b>       | 3     | 0     |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.3</b>     | 0.3   | 0.3   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>7.6</b>     | 7.7   | 8.4   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.0</b>    | 19.3  | 19.9  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | 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 |      | <b>1</b>     | 0    | 1    |
| Boron            | ppm      | ASTM D5185m |      | <b>15</b>    | 15   | 11   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 66   | <b>62</b>    | 70   | 68   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m | 1000 | <b>796</b>   | 829  | 909  |
| Calcium          | ppm      | ASTM D5185m | 1050 | <b>1168</b>  | 1324 | 1392 |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>1084</b>  | 1060 | 1065 |
| Zinc             | ppm      | ASTM D5185m | 1270 | <b>1245</b>  | 1271 | 1319 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3275</b>  | 3067 | 3876 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>14.5</b>  | 14.7 | 15.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.1 | <b>8.1</b>   | 8.0  | 7.7  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.5 | <b>14.2</b>  | 14.3 | 14.3 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0840416 **Received** : 31 Jan 2024  
**Lab Number** : 06075595 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10857686 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**INTERSTATE WASTE-ROCKAWAY**  
 311 WEST MAIN STREET, STE 8  
 ROCKAWAY, NJ  
 US 07866  
 Contact: Service Manager

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:  
F: