



## MANCHESTER AIRPORT R812467M VOLVO PENTA 2013910480 - VARIABLE SPEED - CENTER DIESEL ENGINE

Sample No: VPA044885

**Oil Type:** VOLVO PENTA SAE 15W40

| SAMPLE INFORMAT  | TION     |               |              |      |
|------------------|----------|---------------|--------------|------|
|                  |          |               |              |      |
| Sample Number    |          | VPA044885     | VPA026906    | <br> |
| Sample Date      |          | 15 Sep 2023   | 07 Mar 2022  | <br> |
| Machine Hours    |          | 630           | 372          | <br> |
| Oil Hours        |          | 0             | 0            | <br> |
| Oil Changed      |          | N/A           | N/A          | <br> |
| Sample Status    |          | ATTENTION     | ATTENTION    | <br> |
| OIL CONDITION    |          |               |              |      |
| Visc @ 100°C     | cSt      | <u> </u>      | <u> </u>     | <br> |
| Base Number (BN) | mg KOH/g | <b>■</b> 9.2  | ■8.6         | <br> |
| Oxidation (PA)   | %        | 81            | 82           | <br> |
| . ,              | 70       | <u> </u>      |              |      |
| CONTAMINATION    |          |               |              |      |
| Soot %           | %        | <b>■</b> 0.1  | □0.1         | <br> |
| Nitration (PA)   | %        | 61            | 71           | <br> |
| Sulfation (PA)   | %        | 61            | 64           | <br> |
| Glycol           | %        | NEG           | NEG          | <br> |
| Fuel             | %        | <1.0          | 0.7          | <br> |
| Silicon          | ppm      | <b>■10</b>    | 25           | <br> |
| Sodium           | ppm      | <b>■</b> 4    | <b>2</b>     | <br> |
| Potassium        | ppm      | <b>□</b> <1   | 0            | <br> |
| rotassium        | ррпп     |               | 0            | <br> |
| WEAR METALS      |          |               |              |      |
| Iron             | ppm      | <b>■</b> 6    | <b>1</b> 5   | <br> |
| Copper           | ppm      | <b>■34</b>    | <u>▲</u> 125 | <br> |
| Lead             | ppm      | <1            | <b>3</b>     | <br> |
| Tin              | ppm      | <b>1</b>      | 2            | <br> |
| Aluminum         | ppm      | <b>■&lt;1</b> | <b>1</b> 2   | <br> |
| Chromium         | ppm      | ■0            | <u> </u>     | <br> |
| Molybdenum       | ppm      | <b>■</b> 46   | <b>□</b> 56  | <br> |
| Nickel           | ppm      | ■0            | 0            | <br> |
| Titanium         | ppm      | ■0            | <b>0</b>     | <br> |
| Silver           | ррт      | ■0            | 0            | <br> |
| Manganese        |          | <b>■</b> <1   | <b>2</b>     | <br> |
| Vanadium         | ppm      | 0             | 0            | <br> |
| variaulum        | ррпп     | •             | 0            |      |
| ADDITIVES        |          |               |              |      |
| Calcium          | ppm      | <b>1686</b>   | ■1166        | <br> |
| Magnesium        | ppm      | <b>621</b>    | <b>1002</b>  | <br> |
| Zinc             | ppm      | ■1008         | ■1185        | <br> |
| Phosphorus       | ppm      | <b>810</b>    | ■1029        | <br> |
| Barium           | ppm      | ■0            | <b>0</b>     | <br> |
| Boron            | ppm      | <b>■</b> 50   | <u></u> 5    | <br> |
|                  | 1. 1     |               |              |      |

## **Power Products Systems LLC**

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## Diagnosis

F:

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

 Depot:
 VP153549

 Unique No:
 10669743

 Signed:
 Sean Felton

 Report Date:
 29 Sep 2023

## **OIL ANALYSIS REPORT**



