## **OIL ANALYSIS REPORT**

### RODGERS VOLVO PENTA 3940015150 - STARBOARD IPS

Sample No: VPA049900

Oil Type: GEAR OIL SAE 75W90

| Nple Number         VPA049900              mple Date         26 Oct 2023               Hours         916                Hours         43                Changed         Not Changd                Constraint         Nort Changd                It CONDITION                 ONTAMINATION                 Conn         ppm         12               Conn         ppm         1               Itakssium         ppm         6               Itakssium         ppm         0               inium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SAMPLE INFORM | IATION |              |      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------|--------------|------|--|
| mple Date       26 Oct 2023            Hours       916            Hours       43            mple Status       NOR Changd            IL CONDITION             IL CONDITION             C @ 40°C       cSt       106.2            ONTAMINATION             con       ppm       12            con       ppm       14            reassium       ppm       6            read       ppm       6            read       ppm       0            read       ppm       0            read       ppm       0            read       ppm       0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |        |              |      |  |
| Addine Hours       916            Hours       43            Changed       Not Changd            IL CONDITION             IL CONDITION             ONTAMINATION             Con       ppm       12            dium       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | •             |        |              |      |  |
| Hours       43             Changed       Not Changd             mple Status       NORMAL             IL CONDITION              ONTAMINATION              Con       ppm       1             ONTAMINATION              con       ppm       1             dium       ppm       1             con       ppm       1             tassium       ppm       6             pper       ppm       6             ad       ppm       0             information       ppm       1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -             |        |              |      |  |
| Changed       Not Changd            mple Status       NORMAL            IL CONDITION             IL CONDITION             CQ 40°C       cSt       106.2            ONTAMINATION             con       ppm       21            dium       ppm       <11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |        |              |      |  |
| mple Status         NORMAL              L CONDITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |        |              |      |  |
| IL CONDITION         c @ 40°C       cSt       106.2            ONTAMINATION             con       ppm       12            dium       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |        | _            |      |  |
| c @ 40°C       cSt       106.2            ONTAMINATION             con       ppm       12            dium       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sample Status |        | NORMAL       | <br> |  |
| ONTAMINATION           con         ppm         12              dium         ppm         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | OIL CONDITION |        |              |      |  |
| con         ppm         12              dium         ppm         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Visc @ 40°C   | cSt    | <b>106.2</b> | <br> |  |
| bit         control         control <thcontrol< th=""> <thcontrol< th=""> <thcontr< td=""><td>CONTAMINATION</td><td>l</td><td></td><td></td><td></td></thcontr<></thcontrol<></thcontrol<> | CONTAMINATION | l      |              |      |  |
| dium         ppm         <1             tassium         ppm         1              VEAR METALS               n         ppm         29              n         ppm         6              ad         ppm         0              ad         ppm         0              ad         ppm         0              ad         ppm         1              add         ppm         1              addium         ppm         1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Silicon       | ppm    | 12           | <br> |  |
| tassium         ppm         1               VEAR METALS                 n         ppm         0               pper         ppm         0               ad         ppm         0               ad         ppm         0               ad         ppm         1               ad         ppm         1               ad         ppm         1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Sodium        | ppm    | <b></b> <1   | <br> |  |
| 14            n       ppm       29           pper       ppm       6           ad       ppm       0           ad       ppm       1           ad       ppm       1            aminum       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Potassium     |        | <b>1</b>     | <br> |  |
| n       ppm       29            pper       ppm       6            ad       ppm       0            ad       ppm       0            uminum       ppm       1            uminum       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WEAR METALS   |        |              |      |  |
| pper         ppm         6              ad         ppm         0              iminum         ppm         0              iminum         ppm         1              iminum         ppm         <1              objybdenum         ppm         <1              objybdenum         ppm         <1              objybdenum         ppm         <1              anium         ppm         <1              ver         ppm         0              onganese         ppm         0              opms         7               opgesium         ppm         5              osphorus         ppm         1383 <td>PQ</td> <td></td> <td><b>1</b>4</td> <td><br/></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PQ            |        | <b>1</b> 4   | <br> |  |
| ad         ppm         0              uminum         ppm         0              uminum         ppm         1              romium         ppm         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Iron          | ppm    | 29           | <br> |  |
| ppm         0             uminum         ppm         1             romium         ppm         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Copper        | ppm    | 6            | <br> |  |
| iminum       ppm       1           iromium       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Lead          | ppm    | 0            | <br> |  |
| romium       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Tin           | ppm    | 0            | <br> |  |
| bybdenum       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Aluminum      | ppm    | 1            | <br> |  |
| ckel       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Chromium      | ppm    | <b>_</b> <1  | <br> |  |
| anium       ppm       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Molybdenum    | ppm    | <b></b> <1   | <br> |  |
| anium         ppm         <1              /er         ppm         0               inganese         ppm         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nickel        | ppm    | <b></b> <1   | <br> |  |
| nganese         ppm         <1              nadium         ppm         0               DDITIVES                 lcium         ppm         7               ingnesium         ppm         5               icc         ppm         11               osphorus         ppm         1383               rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Titanium      | ppm    | <1           | <br> |  |
| Inganese         ppm         <1              nadium         ppm         0               DDITIVES                 lcium         ppm         7               ignesium         ppm         5               icc         ppm         11               osphorus         ppm         1383               rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Silver        |        | 0            | <br> |  |
| nadium         ppm         0              DDITIVES                Icium         ppm         7               ignesium         ppm         5               ic         ppm         11               osphorus         ppm         1383               rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Manganese     |        | ■<1          | <br> |  |
| ppm         7              pgnesium         ppm         5              oc         ppm         11              osphorus         ppm         1383              rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Vanadium      |        | 0            | <br> |  |
| Image: signesium         ppm         5              icc         ppm         11              osphorus         ppm         1383              rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ADDITIVES     |        |              |      |  |
| ppm         11              osphorus         ppm         1383              rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Calcium       | ppm    | 7            | <br> |  |
| ppm         11              osphorus         ppm         1383              rium         ppm         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Magnesium     | ppm    | 5            | <br> |  |
| osphorus ppm <b>1383</b><br>rium ppm <b>0</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Zinc          |        |              | <br> |  |
| nium ppm <b>0</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Phosphorus    |        |              | <br> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Barium        |        |              | <br> |  |
| ron ppm <b>342</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Boron         | ppm    | 342          | <br> |  |

### VOLVO PENTA

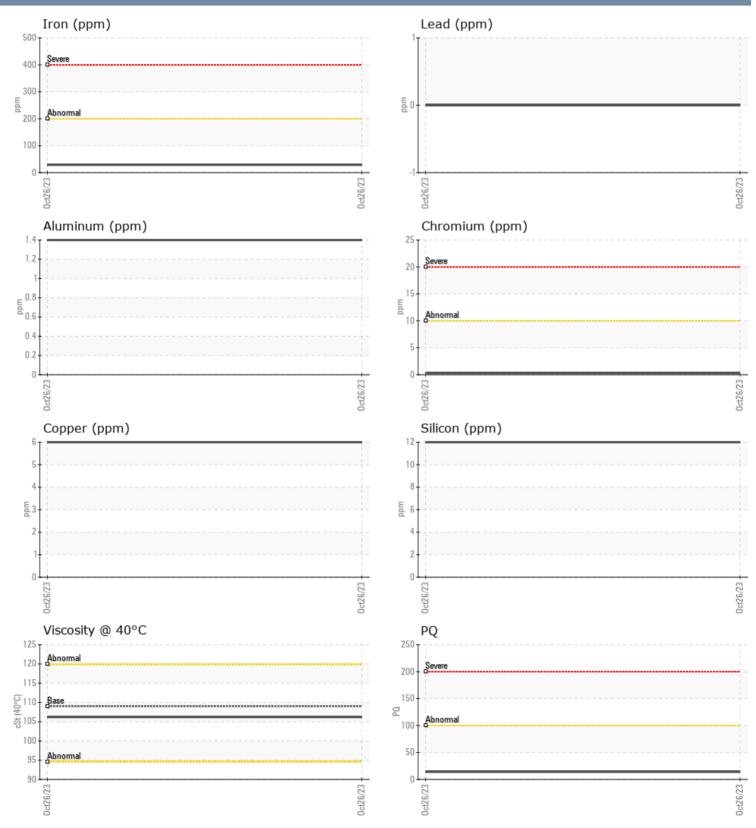
| Depot:       | VP153685        |
|--------------|-----------------|
| Unique No:   | 10715969        |
| Signed:      | Jonathan Hester |
| Report Date: | 30 Oct 2023     |

Contact/Location: Ronda Bolinger - VP153685

# **OIL ANALYSIS REPORT**



#### GRAPHS



Report Id: VP153685 [WUSCAR] 05993307 (Generated: 10/30/2023 16:04:28) Rev: 1

Contact/Location: Ronda Bolinger - VP153685