



## **CUMMINS 20410437 - INBOARD - PORT GEARBOX**

Sample No: VPA057414
Oil Type: {unknown}

| SAMPLE INFORMATION   Sample Number   Sample Number   Sample Date   15 Mar 2024  |                |       |              |      |  |
|---|----------------|-------|--------------|------|--|
| Sample Date         15 Mar 2024   | SAMPLE INFORMA | ATION |              |      |  |
| Sample Date         15 Mar 2024   | Sample Number  |       | VPA057414    | <br> |  |
| Machine Hours         0 <t< td=""><td></td><td></td><th></th><td><br/></td><td></td></t<>   |                |       |              | <br> |  |
| Oil Changed Sample Status         N/A   |                |       | 0            | <br> |  |
| Sample Status         ABNORMAL  | Oil Hours      |       | 0            | <br> |  |
| OIL CONDITION           CONTAMINATION           Water         %         NEG  <  | Oil Changed    |       | N/A          | <br> |  |
| Visc @ 40°C   cSt   34.8  | Sample Status  |       | ABNORMAL     | <br> |  |
| Vater   | OIL CONDITION  |       |              |      |  |
| Water         %         NEG            Soliticon         ppm         8  | Visc @ 40°C    | cSt   | ■34.8        | <br> |  |
| Silicon       ppm       8 <td< td=""><td>CONTAMINATION</td><td></td><th></th><td></td><td></td></td<>   | CONTAMINATION  |       |              |      |  |
| Silicon       ppm       8 <td< td=""><td>Water</td><td>%</td><th>NEG</th><td><br/></td><td></td></td<>  | Water          | %     | NEG          | <br> |  |
| Sodium         ppm         ■2              WEAR METALS           WEAR METALS           PQ         ■101              Iron         ppm         233              Copper         ppm         0              Lead         ppm         0              Aluminum         ppm         0              Aluminum         ppm         0              Chromium         ppm         3              Molybdenum         ppm         51              Nickel         ppm         <1  | Silicon        |       | ■8           | <br> |  |
| Potassium         ppm         6              WEAR METALS           PQ         101              Iron         ppm         233              Copper         ppm         240              Lead         ppm         0              Aluminum         ppm         6              Chromium         ppm         3              Molybdenum         ppm         51              Nickel         ppm         <1   | Sodium         |       | <b>2</b>     | <br> |  |
| PQ  | Potassium      |       | <b>6</b>     | <br> |  |
| Iron         ppm         ▲ 240              Copper         ppm         ● 0              Tin         ppm         ● 2              Aluminum         ppm         ● 6              Chromium         ppm         ● 3              Molybdenum         ppm         51              Nickel         ppm         < 1  | WEAR METALS    |       |              |      |  |
| Copper       ppm       240  <   | PQ             |       | <b>101</b>   | <br> |  |
| Lead       ppm       0  | Iron           | ppm   | <u>△</u> 233 | <br> |  |
| Tin ppm 2 Aluminum ppm 6  | Copper         | ppm   | <u> </u>     | <br> |  |
| Aluminum       ppm       6            Chromium       ppm       3            Molybdenum       ppm       51            Nickel       ppm       <1  | Lead           | ppm   | ■0           | <br> |  |
| Chromium         ppm         3              Molybdenum         ppm         51              Nickel         ppm         <1  |                | ppm   | ■2           | <br> |  |
| Molybdenum         ppm         51              Nickel         ppm         <1  |                | ppm   | _            | <br> |  |
| Nickel         ppm         Image: state of the limit of |                | ppm   |              |      |  |
| Titanium         ppm         <1   |                | ppm   |              | <br> |  |
| Silver         ppm         0              Manganese         ppm         3              Vanadium         ppm         0              ADDITIVES           Calcium         ppm         2407              Magnesium         ppm         11              Zinc         ppm         798              Phosphorus         ppm         705              Barium         ppm         <1  |                |       | _            |      |  |
| Manganese         ppm         3   |                |       |              |      |  |
| Vanadium         ppm         0              ADDITIVES           Calcium         ppm         2407              Magnesium         ppm         11              Zinc         ppm         798              Phosphorus         ppm         705              Barium         ppm         <1   |                |       |              |      |  |
| ADDITIVES  Calcium ppm 2407 Magnesium ppm 11 Zinc ppm 798 Phosphorus ppm 705 Barium ppm <1  | 3              |       |              |      |  |
| Calcium         ppm         2407              Magnesium         ppm         11              Zinc         ppm         798              Phosphorus         ppm         705              Barium         ppm         <1   | Vanadium       | ppm   | 0            | <br> |  |
| Magnesium         ppm         11              Zinc         ppm         798              Phosphorus         ppm         705              Barium         ppm         <1   | ADDITIVES      |       |              |      |  |
| Zinc         ppm         798              Phosphorus         ppm         705              Barium         ppm         <1   | Calcium        | ppm   | 2407         | <br> |  |
| Phosphorus         ppm         705              Barium         ppm         <1   | Magnesium      | ppm   | 11           | <br> |  |
| Barium ppm <1   | Zinc           | ppm   | 798          | <br> |  |
| FP.   | Phosphorus     | ppm   | 705          | <br> |  |
| Boron ppm <b>215</b>  | Barium         | ppm   | <1           | <br> |  |
|   | Boron          | ppm   | 215          | <br> |  |

## Sun Power Diesel & Marine

833 NE 3Rd Ave DANIA BEACH, FL US 33004 Contact: SCOTT scott@sunpowermarine.com T: (954)237-2200 F: (954)237-2222

## Diagnosis

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. The copper level is abnormal. Gear wear is indicated. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:VP154386Unique No:10936876Signed:Jonathan HesterReport Date:21 Mar 2024

Contact/Location: SCOTT? - VP154386





