

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

## Machine Id

## 5 Component

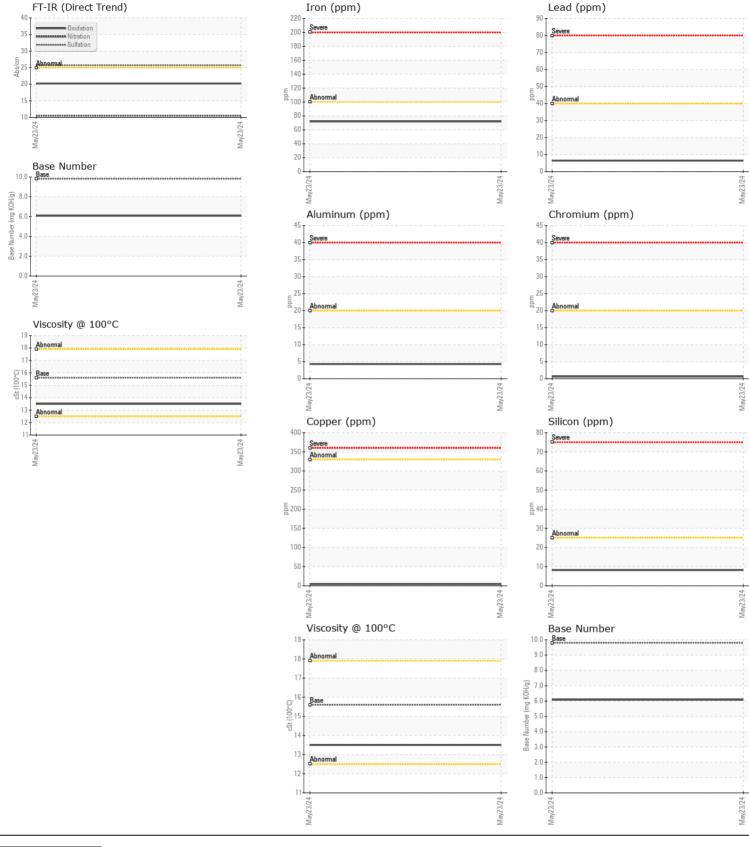
## **Diesel Engine**

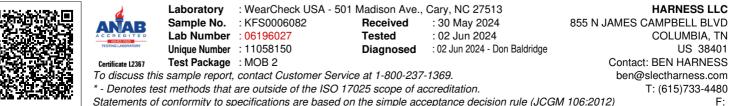
## PETRO CANADA DURON HP 15W40 (--- GAL)

| RECOMMENDATION  | Test                 | UOM        | Method                     | Limit/Abn | Current                                 | History1 | History2 |
|---|----------------------|------------|----------------------------|-----------|---|----------|----------|
| Becample at the next service interval to monitor  | Sample Number        |            | Client Info                |           | KFS0006082                              |          |          |
| Resample at the next service interval to monitor.   | Sample Date          |            | Client Info                |           | 23 May 2024                             |          |          |
|   | Machine Age          | mls        | Client Info                |           | 290541                                  |          |          |
|   | Oil Age              | mls        | Client Info                |           | 290541                                  |          |          |
|   | Filter Age           | mls        | Client Info                |           | 290541                                  |          |          |
|   | Oil Changed          |            | Client Info                |           | Changed                                 |          |          |
|   | Filter Changed       |            | Client Info                |           | Changed                                 |          |          |
|   | Sample Status        |            |                            |           | NORMAL                                  |          |          |
| WEAR<br>All component wear rates are normal.  | Iron                 | ppm        | ASTM D5185m                | >100      | 72                                      |          |          |
|   | Chromium             | ppm        | ASTM D5185m                | >20       | <1                                      |          |          |
|   | Nickel               | ppm        | ASTM D5185m                |           | <1                                      |          |          |
|   | Titanium             | ppm        | ASTM D5185m                |           | <1                                      |          |          |
|   | Silver               | ppm        | ASTM D5185m                | >3        | 0                                       |          |          |
|   | Aluminum             | ppm        | ASTM D5185m                |           | 4                                       |          |          |
|   | Lead                 | ppm        | ASTM D5185m                |           | 6                                       |          |          |
|   | Copper               | ppm        | ASTM D5185m                |           | 4                                       |          |          |
|   | Tin                  | ppm        | ASTM D5185m                |           | <1                                      |          |          |
|   | Vanadium             | ppm        | ASTM D5185m                | 10        | <1                                      |          |          |
|   | White Metal          | scalar     | *Visual                    | NONE      | NONE                                    |          |          |
|   | Yellow Metal         | scalar     | *Visual                    | NONE      | NONE                                    |          |          |
| CONTAMINATION   | 0.11                 |            |                            |           | • |          |          |
|   | Silicon<br>Potassium | ppm<br>ppm | ASTM D5185m<br>ASTM D5185m |           | 8                                       |          |          |
| There is no indication of any contamination in the oil.   | Fuel                 | ррш        | WC Method                  |           |   |          |          |
|   | Water                |            |                            |           | <1.0<br>NEG                             |          |          |
|   |                      |            | WC Method                  | >0.2      |   |          |          |
|   | Glycol               | 0/         | WC Method                  | 0         | NEG                                     |          |          |
|   | Soot %               | %          | *ASTM D7844                |           | 0.9                                     |          |          |
|   | Nitration            | Abs/cm     | *ASTM D7624                |           | 10.5                                    |          |          |
|   | Sulfation            | Abs/.1mm   | *ASTM D7415                |           | 25.7                                    |          |          |
|   | Silt                 | scalar     | *Visual                    | NONE      | NONE                                    |          |          |
|   | Debris               | scalar     | *Visual                    | NONE      | NONE                                    |          |          |
|   | Sand/Dirt            | scalar     | *Visual                    | NONE      | NONE                                    |          |          |
|   | Appearance           | scalar     | *Visual                    | NORML     | NORML                                   |          |          |
|   | Odor                 | scalar     | *Visual                    | NORML     | NORML                                   |          |          |
|   | Emulsified Water     | scalar     | *Visual                    | >0.2      | NEG                                     |          |          |
| FLUID CONDITION   | Sodium               | ppm        | ASTM D5185m                |           | 2                                       |          |          |
|   | Boron                | ppm        | ASTM D5185m                |           | 58                                      |          |          |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium               | ppm        | ASTM D5185m                |           | 0                                       |          |          |
|   | Molybdenum           | ppm        | ASTM D5185m                |           | 8                                       |          |          |
|   | Manganese            | ppm        | ASTM D5185m                |           | <1                                      |          |          |
|   | Magnesium            | ppm        | ASTM D5185m                |           | 55                                      |          |          |
|   | Calcium              | ppm        | ASTM D5185m                |           | 2460                                    |          |          |
|   | Phosphorus           | ppm        | ASTM D5185m                |           | 1013                                    |          |          |
|   | Zinc                 | ppm        | ASTM D5185m                |           | 1289                                    |          |          |
|   | Sulfur               | ppm        | ASTM D5185m                |           | 4060                                    |          |          |
|   | Oxidation            | Abs/.1mm   | *ASTM D7414                | >25       | 20.2                                    |          |          |
|   | Base Number (BN)     |            |                            |           | 6.08                                    |          |          |
|   | Vice @ 100%C         | oC+        |                            | 15.0      | 10.5                                    |          |          |

Visc @ 100°C cSt ASTM D445 15.6

13.5





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