

## **OIL ANALYSIS REPORT**

Sample Rating Trend



### Machine Id EASG1016238

Component Diesel Engine Fluid CHEVRON 15W40 (--- QTS)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

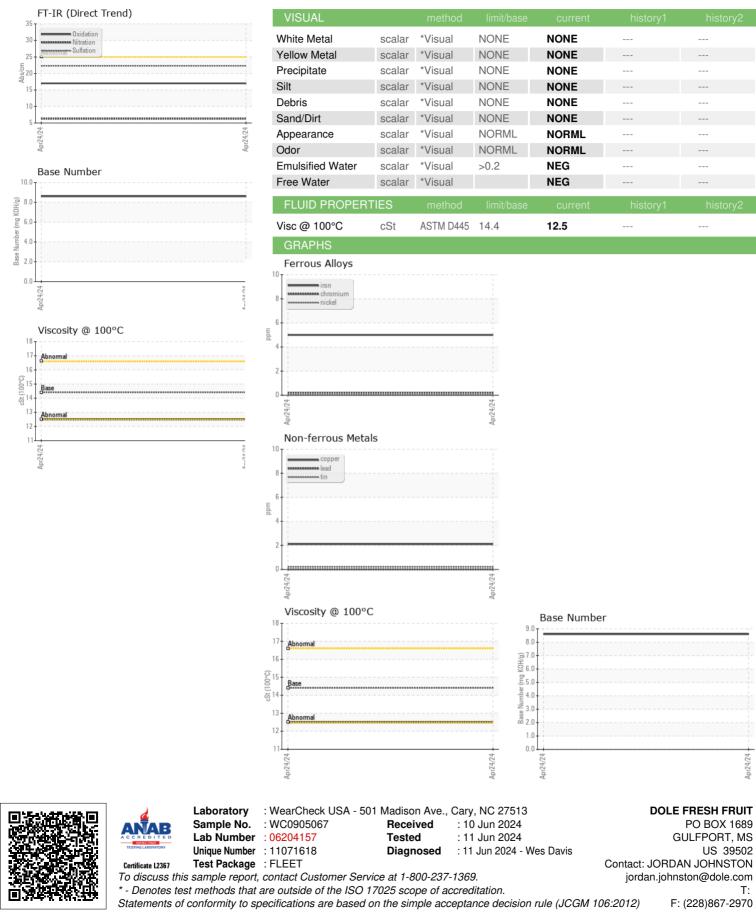
#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORM   | <b>/IATION</b>   | method   | limit/base  | current  | history1   | history2   |
|---|--|--|---|--|--|--|
| Sample Number   |  | Client Info  |   | WC0905067  |  |  |
| Sample Date   |  | Client Info  |   | 24 Apr 2024  |  |  |
| Machine Age   | hrs  | Client Info  |   | 4611   |  |  |
| Oil Age   | hrs  | Client Info  |   | 1500   |  |  |
| Oil Changed   |  | Client Info  |   | Changed  |  |  |
| Sample Status   |  |  |   | NORMAL   |  |  |
|   | NI.  | ino oblo o ol  | line it //s s s s   |  | late to must   | biotom (   |
|   | N  | method<br>WC Method  | limit/base  | current  | history1   | history2   |
| Water   |  | WC Method  | >0.2  | <1.0<br>NEG  |  |  |
|   |  | WC Method  | >0.2  | NEG  |  |  |
| Glycol  |  | WC Welling   |   | NEG  |  |  |
| WEAR METALS   |  | method   | limit/base  | current  | history1   | history2   |
| Iron  | ppm  | ASTM D5185m  | >100  | 5  |  |  |
| Chromium  | ppm  | ASTM D5185m  | >20   | <1   |  |  |
| Nickel  | ppm  | ASTM D5185m  | >4  | 0  |  |  |
| Titanium  | ppm  | ASTM D5185m  |   | <1   |  |  |
| Silver  | ppm  | ASTM D5185m  | >3  | 0  |  |  |
| Aluminum  | ppm  | ASTM D5185m  | >20   | 3  |  |  |
| Lead  | ppm  | ASTM D5185m  | >40   | 0  |  |  |
| Copper  | ppm  | ASTM D5185m  | >330  | 2  |  |  |
| Tin   | ppm  | ASTM D5185m  | >15   | <1   |  |  |
| Vanadium  | ppm  | ASTM D5185m  |   | 0  |  |  |
| Cadmium   | ppm  | ASTM D5185m  |   | <1   |  |  |
|   |  |  |   |  |  |  |
| ADDITIVES   |  | method   | limit/base  | current  | history1   | history2   |
| ADDITIVES<br>Boron  | ppm  | method<br>ASTM D5185m  | limit/base  | current<br>402   | history1   | history2   |
|   | ppm<br>ppm   |  | limit/base  |  |  |  |
| Boron   |  | ASTM D5185m  | limit/base  | 402  |  |  |
| Boron<br>Barium   | ppm  | ASTM D5185m<br>ASTM D5185m   | limit/base  | 402<br>2   |  |  |
| Boron<br>Barium<br>Molybdenum   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | limit/base  | 402<br>2<br>128  |  |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | limit/base  | 402<br>2<br>128<br>0   |  |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium   | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | limit/base  | 402<br>2<br>128<br>0<br>626  |  |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | limit/base  | 402<br>2<br>128<br>0<br>626<br>1446  | <br><br>   |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | limit/base  | 402<br>2<br>128<br>0<br>626<br>1446<br>732   | <br><br>   |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | limit/base  | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851  | <br><br><br><br>   |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  |   | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538  |  |  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | limit/base  | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current   | <br><br><br><br><br>history1                                 | <br><br><br><br><br>history2                                   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br><b>method</b><br>ASTM D5185m   | limit/base  | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5  | <br><br><br><br><br>history1<br>                             | <br><br><br><br><br>history2                                   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br><b>method</b><br>ASTM D5185m   | limit/base<br>>25<br>>50  | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5<br>0   | <br><br><br><br><br>history1                                 | <br><br><br><br><br>history2                                   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m  | limit/base<br>>25<br>>50<br>>20   | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5<br>0<br>2  | <br><br><br><br><br>history1<br><br>                         | <br><br><br><br><br>history2<br><br>                           |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>INFRA-RED                                     | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m   | limit/base<br>>25<br>>50<br>>20<br>limit/base                                   | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5<br>0<br>2<br>2   | <br><br><br><br><br>history1<br><br><br>history1             | <br><br><br><br><br>history2<br><br><br>history2               |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>INFRA-RED<br>Soot %                           | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m  | limit/base<br>>25<br>>50<br>>20<br>limit/base<br>>3                             | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5<br>0<br>2<br>2<br>current<br>0.1                         | <br><br><br><br><br>history1<br><br><br>history1<br>         | <br><br><br><br><br>history2<br><br>history2<br><br>history2   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>INFRA-RED<br>Soot %<br>Nitration              | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m   | limit/base<br>>25<br>>50<br>>20<br>limit/base<br>>3<br>>20                      | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5<br>0<br>2<br>current<br>0.1<br>6.3                       | history1 history1  | <br><br><br><br><br>history2<br><br><br>history2               |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>INFRA-RED<br>Soot %<br>Nitration<br>Sulfation | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D7844<br>*ASTM D7624<br>*ASTM D7615 | limit/base<br>>25<br>>50<br>>20<br>limit/base<br>>3<br>>20<br>>30<br>limit/base | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br>current<br>5<br>0<br>2<br>current<br>0.1<br>6.3<br>22.3<br>current    | <br><br><br><br><br>history1<br><br>history1<br><br>history1 | <br><br><br><br><br>history2<br><br>history2<br><br>history2   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>INFRA-RED<br>Soot %<br>Nitration<br>Sulfation | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m               | limit/base<br>>25<br>>50<br>>20<br>limit/base<br>>3<br>>20<br>>30<br>limit/base | 402<br>2<br>128<br>0<br>626<br>1446<br>732<br>851<br>2538<br><u>current</u><br>5<br>0<br>2<br><u>current</u><br>0.1<br>6.3<br>22.3 | history1 history1 history1 history1 history1                 | history2 history2 history2 history2 history2 history2 history2 |



# **OIL ANALYSIS REPORT**



Report Id: DOLGUL [WUSCAR] 06204157 (Generated: 06/11/2024 10:31:20) Rev: 1

Contact/Location: JORDAN JOHNSTON - DOLGUL