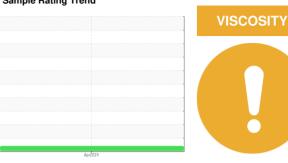


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id SZLG233024

Diesel Engine

**CHEVRON 15W40 (--- QTS)** 

### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

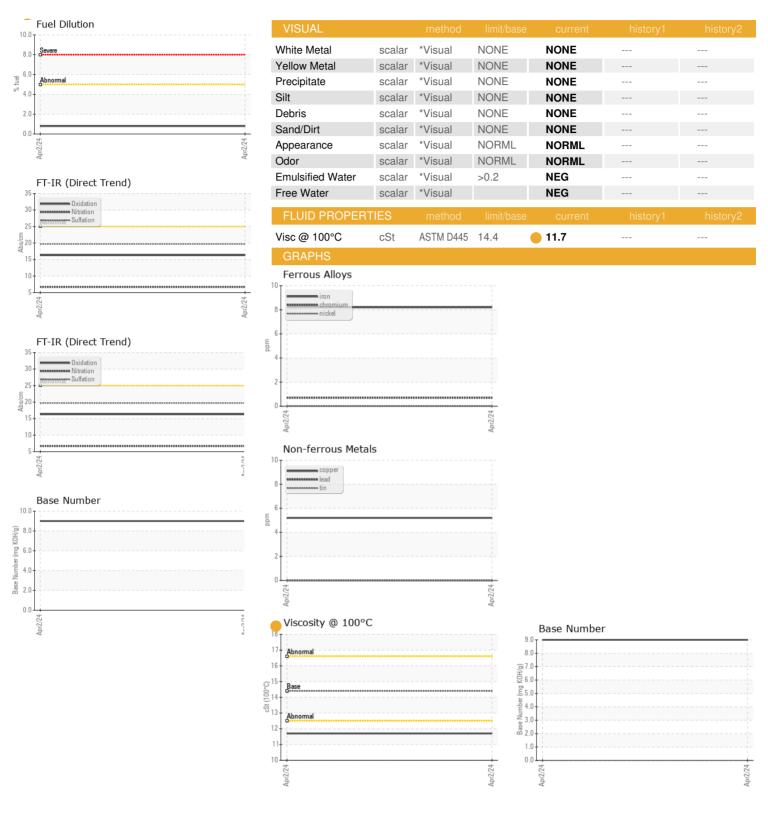
#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

|  |  |   |  | Apr2024  |                            |                              |
|--|--|---|--|--|----------------------------|------------------------------|
|  |  |   |  |  |                            |                              |
| SAMPLE INFORM  | MATION   | method  | limit/base   | current  | history1                   | history2                     |
| Sample Number  |  | Client Info   |  | WC0905041  |                            |                              |
| Sample Date  |  | Client Info   |  | 02 Apr 2024  |                            |                              |
| Machine Age  | hrs  | Client Info   |  | 1163   |                            |                              |
| Oil Age  | hrs  | Client Info   |  | 1500   |                            |                              |
| Oil Changed  |  | Client Info   |  | Changed  |                            |                              |
| Sample Status  |  |   |  | ATTENTION  |                            |                              |
| CONTAMINATIO   | N  | method  | limit/base   | current  | history1                   | history2                     |
| Water  |  | WC Method   | >0.2   | NEG  |                            |                              |
| Glycol   |  | WC Method   |  | NEG  |                            |                              |
| WEAR METALS  |  | method  | limit/base   | current  | history1                   | history2                     |
| Iron   | ppm  | ASTM D5185m   | >100   | 8  |                            |                              |
| Chromium   | ppm  | ASTM D5185m   | >20  | <1   |                            |                              |
| Nickel   | ppm  | ASTM D5185m   | >4   | 0  |                            |                              |
| Titanium   | ppm  | ASTM D5185m   |  | 0  |                            |                              |
| Silver   | ppm  | ASTM D5185m   | >3   | 0  |                            |                              |
| Aluminum   | ppm  | ASTM D5185m   | >20  | 4  |                            |                              |
| Lead   | ppm  | ASTM D5185m   | >40  | 0  |                            |                              |
| Copper   | ppm  | ASTM D5185m   | >330   | 5  |                            |                              |
| Tin  | ppm  | ASTM D5185m   | >15  | 0  |                            |                              |
| Vanadium   | ppm  | ASTM D5185m   | 710  | 0  |                            |                              |
| Cadmium  | ppm  | ASTM D5185m   |  | 0  |                            |                              |
|  |  |   |  |  |                            |                              |
| ADDITIVES  |  | method  | limit/base   | current  | history1                   | history2                     |
|  | mag  | method<br>ASTM D5185m   | limit/base   |  | history1                   | history2                     |
| Boron  | ppm  | ASTM D5185m   | limit/base   | 133  |                            |                              |
| Boron<br>Barium  | ppm  | ASTM D5185m<br>ASTM D5185m  | limit/base   | 133<br>1   |                            |                              |
| Boron<br>Barium<br>Molybdenum  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | limit/base   | 133  |                            |                              |
| Boron<br>Barium<br>Molybdenum<br>Manganese   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m  | limit/base   | 133<br>1<br>67<br>1  |                            |                              |
| 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   | 133<br>1<br>67<br>1<br>467   |                            |                              |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium   | 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   | 133<br>1<br>67<br>1<br>467<br>1929   |                            |                              |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus   | 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   | 133<br>1<br>67<br>1<br>467<br>1929<br>1104   |                            |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc  | 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   | 133<br>1<br>67<br>1<br>467<br>1929   |                            |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus 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<br>ASTM D5185m  | limit/base   | 133<br>1<br>67<br>1<br>467<br>1929<br>1104   |                            |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur 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   |  | 133<br>1<br>67<br>1<br>467<br>1929<br>1104<br>1316<br>4147                                   |                            |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m   | limit/base   | 133<br>1<br>67<br>1<br>467<br>1929<br>1104<br>1316<br>4147<br>current                        |                            | <br><br><br><br><br>history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m   | limit/base >25   | 133<br>1<br>67<br>1<br>467<br>1929<br>1104<br>1316<br>4147<br>current                        |                            | history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m   | limit/base >25 >50 >20                                     | 133<br>1<br>67<br>1<br>467<br>1929<br>1104<br>1316<br>4147<br>current<br>4                   | history1                   | history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m   | limit/base >25 >50 >20                                     | 133 1 67 1 467 1929 1104 1316 4147 current 4 34 0  |                            | history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m ASTM D3524  | limit/base >25 >50 >20 >5                                  | 133<br>1<br>67<br>1<br>467<br>1929<br>1104<br>1316<br>4147<br>current<br>4<br>34<br>0<br>0.8 |                            | history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %                                   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m   | limit/base >25 >50 >20 >5 limit/base                       | 133 1 67 1 467 1929 1104 1316 4147 current 4 34 0 0.8 current 0.1                            |                            | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration                         | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m   | limit/base >25 >50 >20 >5 limit/base >3                    | 133<br>1<br>67<br>1<br>467<br>1929<br>1104<br>1316<br>4147<br>current<br>4<br>34<br>0<br>0.8 | history1 history1          | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration                         | ppm                            | ASTM D5185m ASTM D7844 *ASTM D7844  | limit/base >25 >50 >20 >5 limit/base >3 >20                | 133 1 67 1 467 1929 1104 1316 4147 current 4 34 0 0.8 current 0.1 6.7                        | history1 history1          | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA | ppm                            | ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415 method | limit/base >25 >50 >20 >5 limit/base >3 >20 >30 limit/base | 133 1 67 1 467 1929 1104 1316 4147 current 4 34 0 0.8 current 0.1 6.7 19.7 current           | history1 history1          | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation               | ppm                            | ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145                   | limit/base >25 >50 >20 >5  limit/base >3 >20 >30           | 133 1 67 1 467 1929 1104 1316 4147  current 4 34 0 0.8  current 0.1 6.7 19.7                 | history1 history1 history1 | history2 history2 history2   |



## **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

: WC0905041 Lab Number : 06149422 Unique Number : 10979500

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received

: 15 Apr 2024 **Tested** : 19 Apr 2024 Diagnosed

: 19 Apr 2024 - Don Baldridge Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel)

US 39502 Contact: JORDAN JOHNSTON jordan.johnston@dole.com T:

**DOLE FRESH FRUIT** 

PO BOX 1689

GULFPORT, MS

To discuss this sample report, contact Customer Service at 1-800-237-1369.  $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (228)867-2970 Contact/Location: JORDAN JOHNSTON - DOLGUL