



# OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |

Machine Id  
**DODGE RAM 1217**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0924595</b>   | WC0846314   | WC0822813   |
| Sample Date    |     | Client Info |           | <b>07 May 2024</b> | 22 Mar 2024 | 17 Dec 2023 |
| Machine Age    | mls | Client Info |           | <b>215843</b>      | 215806      | 209449      |
| Oil Age        | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>3</b>     | 14   | 16   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | 0    | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>3</b>     | 6    | 20   |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>3</b>     | 0    | <1   |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | <1   |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

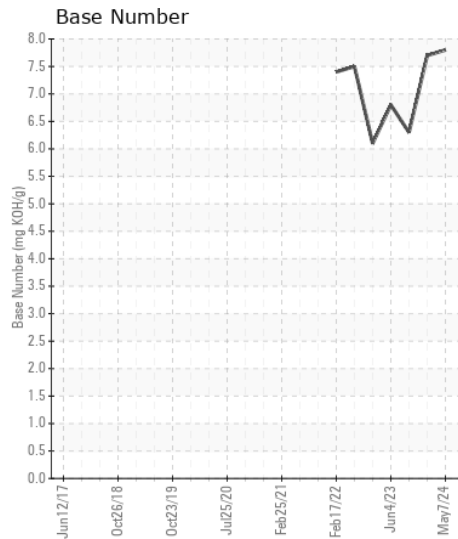
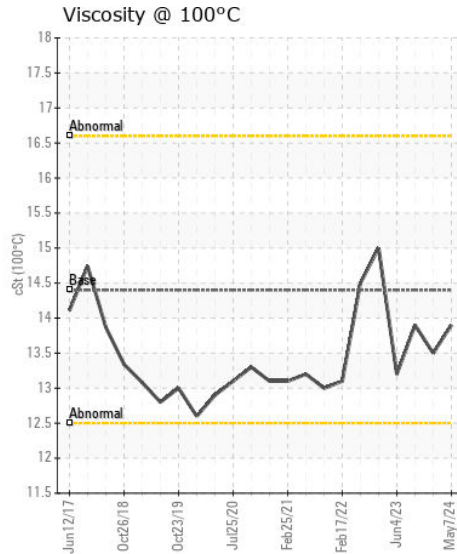
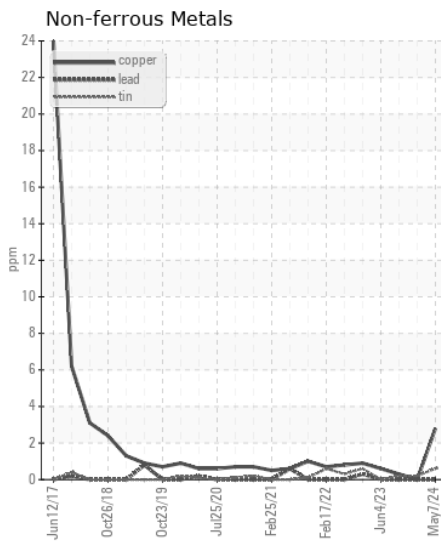
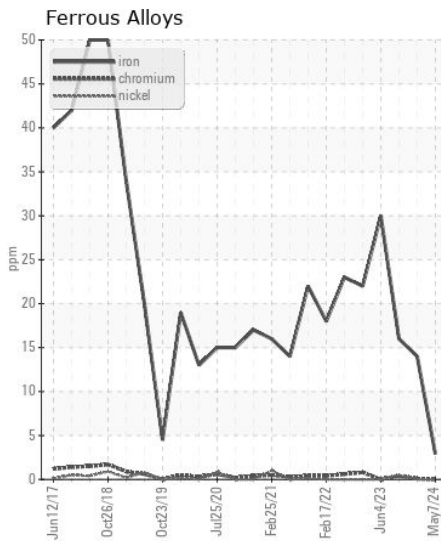
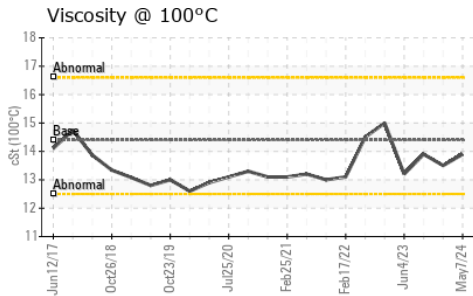
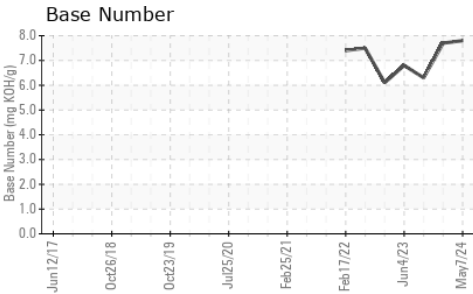
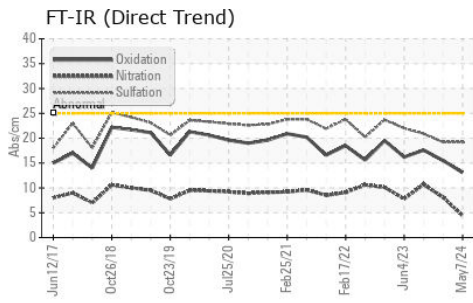
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>6</b>       | 5     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>&lt;1</b>   | 6     | 32    |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.1</b>     | 0.2   | 0.4   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>4.4</b>     | 8.1   | 10.7  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.2</b>    | 19.2  | 20.9  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | NEG   |

## 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.

|                  |          |             |      |             |      |      |
|------------------|----------|-------------|------|-------------|------|------|
| Sodium           | ppm      | ASTM D5185m | >50  | <b>1</b>    | 2    | 4    |
| Boron            | ppm      | ASTM D5185m |      | <b>424</b>  | 49   | 32   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>    | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>77</b>   | 70   | 83   |
| Manganese        | ppm      | ASTM D5185m |      | <b>1</b>    | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>378</b>  | 337  | 105  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1321</b> | 1703 | 2070 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>990</b>  | 949  | 1041 |
| Zinc             | ppm      | ASTM D5185m |      | <b>1165</b> | 1142 | 1232 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3588</b> | 3476 | 3654 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>13.1</b> | 15.5 | 17.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896  |      | <b>7.8</b>  | 7.7  | 6.3  |
| Visc @ 100°C     | cSt      | ASTM D445   | 14.4 | <b>13.9</b> | 13.5 | 13.9 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0924595 **Received** : 13 May 2024  
**Lab Number** : 06176762 **Tested** : 14 May 2024  
**Unique Number** : 11022815 **Diagnosed** : 14 May 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**SULLIVAN EASTERN INC**  
 2860 C SLATER RD  
 MORRISVILLE, NC  
 US 27560  
 Contact: SCOTT SULLIVAN  
 ssullivan@sullivaneastern.com  
 T: (919)484-8993  
 F: (919)484-2136

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - 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)