



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

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

Machine Id **DODGE 2015 DODGE GRAND CARAVAN**

Component **Gasoline Engine**

Fluid **TRC PRO-SPEC MULTI-VIS SB 5W20 (6 QTS)**

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | TR06084357 | TR05813581 | TR05586946 |
| Sample Date | | Client Info | | 03 Feb 2024 | 05 Apr 2023 | 05 Jul 2022 |
| Machine Age | mls | Client Info | | 118238 | 108863 | 99205 |
| Oil Age | mls | Client Info | | 9380 | 9655 | 9806 |
| Filter Age | mls | Client Info | | 9380 | 9655 | 9806 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >150 | 17 | 12 | 14 |
| Chromium | ppm | ASTM D5185m | >8 | <1 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >60 | 4 | 3 | 4 |
| Lead | ppm | ASTM D5185m | >75 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >75 | 5 | 4 | 6 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

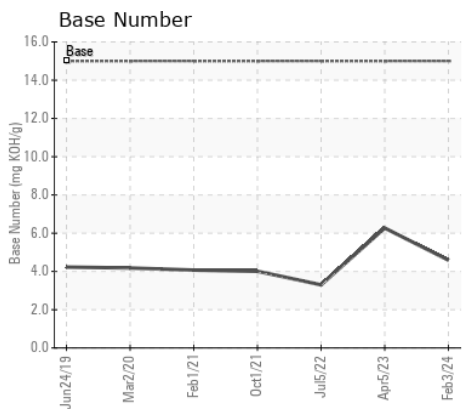
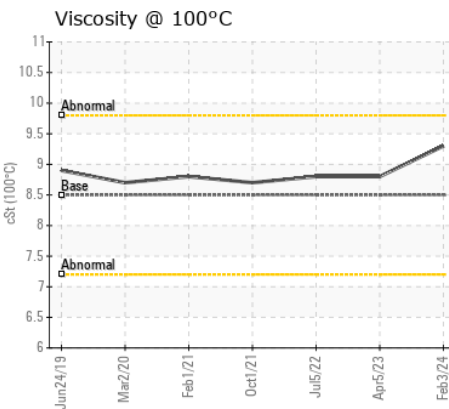
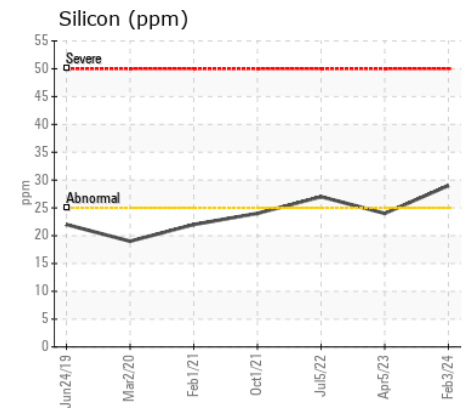
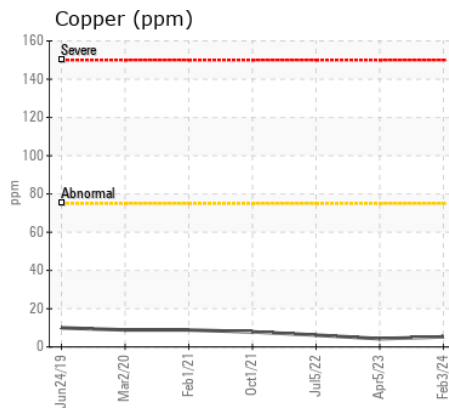
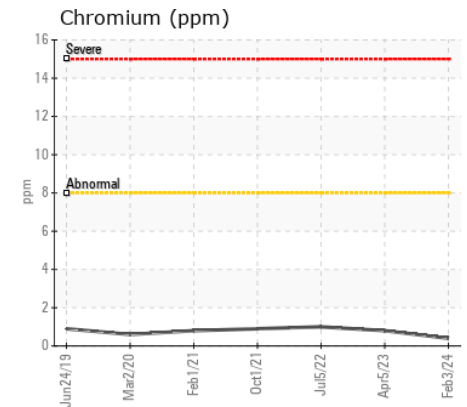
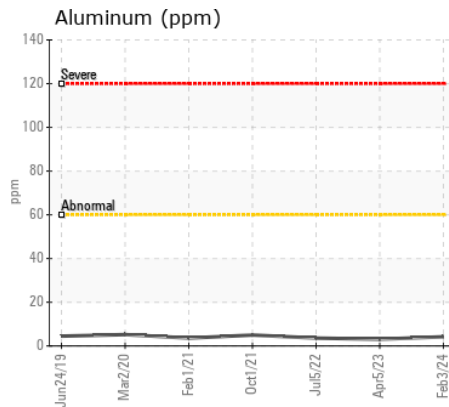
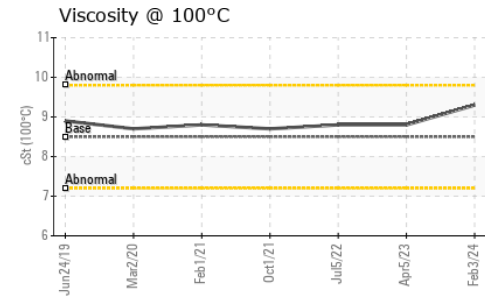
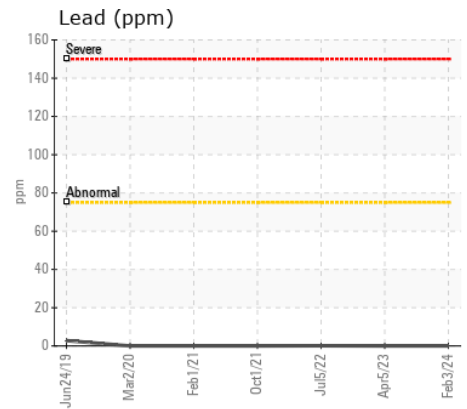
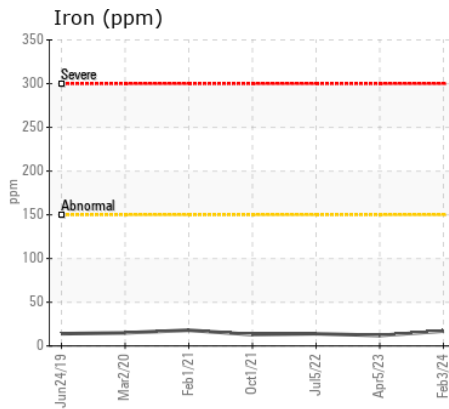
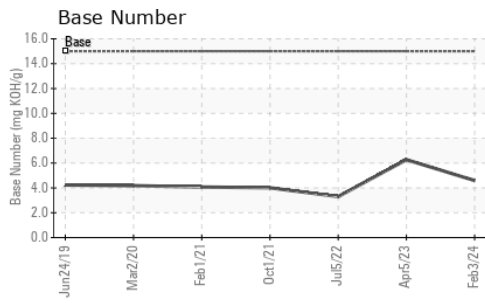
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 29 | 24 | 27 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 2 | 3 |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.9 | 11.8 | 13.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.9 | 24.3 | 25.6 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | 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 | | 2 | <1 | 1 |
| Boron | ppm | ASTM D5185m | | 22 | 20 | 20 |
| Barium | ppm | ASTM D5185m | | 0 | 1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 174 | 181 | 172 |
| Manganese | ppm | ASTM D5185m | | 5 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 529 | 570 | 493 |
| Calcium | ppm | ASTM D5185m | 4200 | 1401 | 1510 | 1410 |
| Phosphorus | ppm | ASTM D5185m | 800 | 774 | 752 | 714 |
| Zinc | ppm | ASTM D5185m | 800 | 934 | 971 | 920 |
| Sulfur | ppm | ASTM D5185m | | 2085 | 2611 | 2460 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.5 | 19.2 | 23.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 15 | 4.59 | 6.27 | 3.30 |
| Visc @ 100°C | cSt | ASTM D445 | 8.5 | 9.3 | 8.8 | 8.8 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06084357
Lab Number : 06084357
Unique Number : 10871802
Test Package : MOB 2

Received : 08 Feb 2024
Tested : 09 Feb 2024
Diagnosed : 12 Feb 2024 - Sean Felton

AKRIDGE LIVESTOCK SERVICE
 4700 CR919
 CROWLEY, TX
 US 76036
 Contact: AUBREY AKRIDGE

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)

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