TRAAP
Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

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

Machine Id
## DODGE DODGE RAM 2500
Component
## Diesel Engine
Fluid
## TRC MOLY PRO-SPEC IV XP 15W40 (11 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

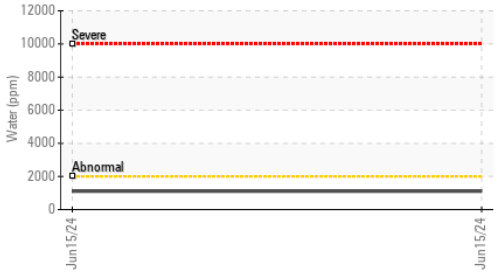
There is a trace of moisture present in the oil.

## FLUID CONDITION

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

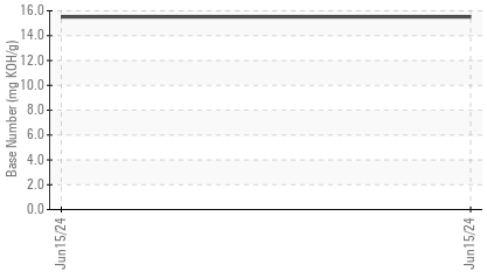
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | TR06217046 | --- | --- |
| Sample Date | | Client Info | | 15 Jun 2024 | --- | --- |
| Machine Age | mls | Client Info | | 0 | --- | --- |
| Oil Age | mls | Client Info | | 5000 | --- | --- |
| Filter Age | mls | Client Info | | 5000 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | MARGINAL | --- | --- |
| Iron | ppm | ASTM D5185m | >100 | 17 | --- | --- |
| 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 | 9 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | 2 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | <1 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185m | >25 | 18 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 3 | --- | --- |
| Fuel | | WC Method | >5 | <1.0 | --- | --- |
| Water | % | ASTM D6304 | >0.2 | ▲ 0.111 | --- | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | ▲ 1110 | --- | --- |
| Glycol | % | *ASTM D2982 | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.2 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.0 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | SOLID | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | ▲ 0.2% | --- | --- |
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | | 8 | --- | --- |
| Barium | ppm | ASTM D5185m | | 5 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 1688 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 97 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 4568 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 1049 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 1183 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 6737 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 10.6 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 15.51 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 15.4 | --- | --- |

Water (KF)

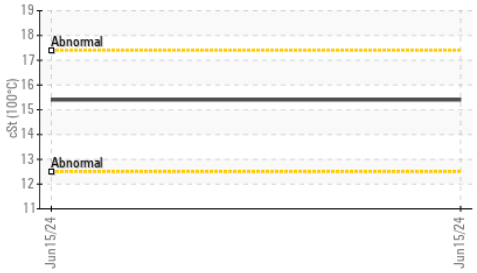



FT-IR (Direct Trend)

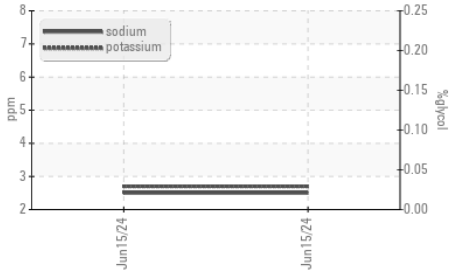

Base Number



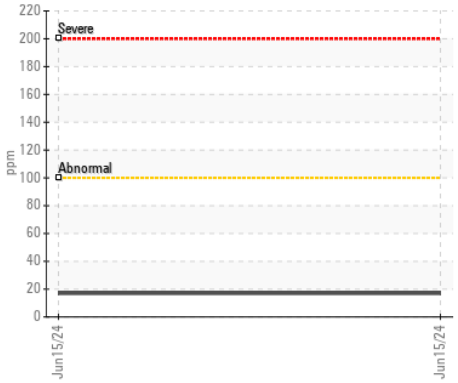

Viscosity @ 100°C



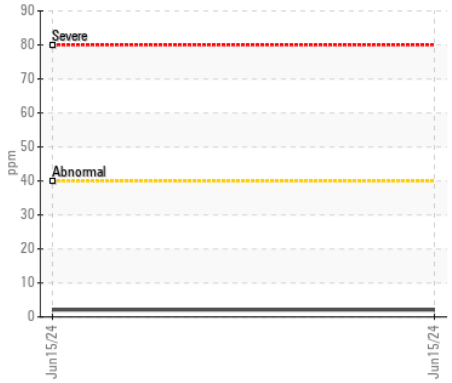

Glycol Contamination



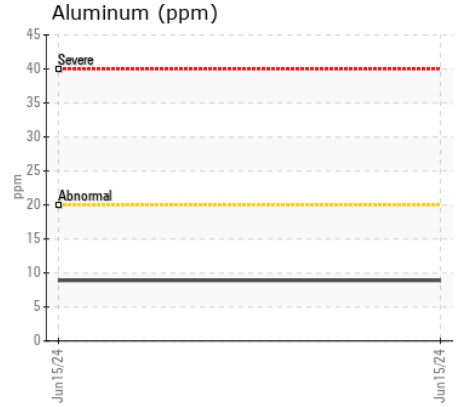

Iron (ppm)



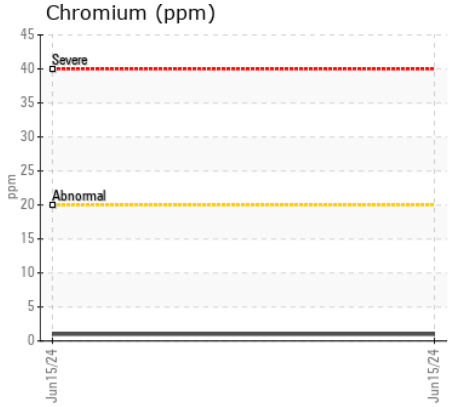

Lead (ppm)



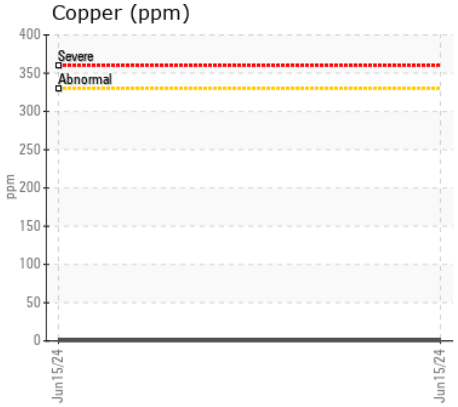

Aluminum (ppm)



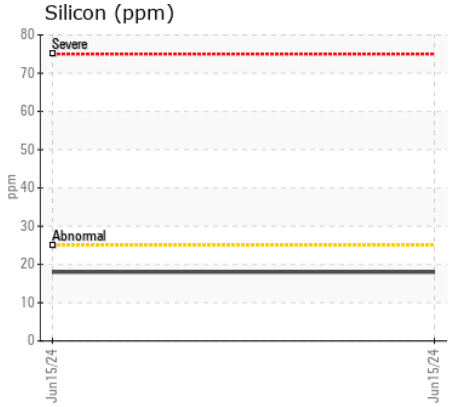

Chromium (ppm)



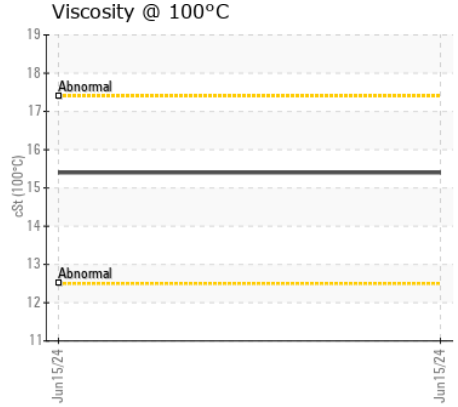

Copper (ppm)



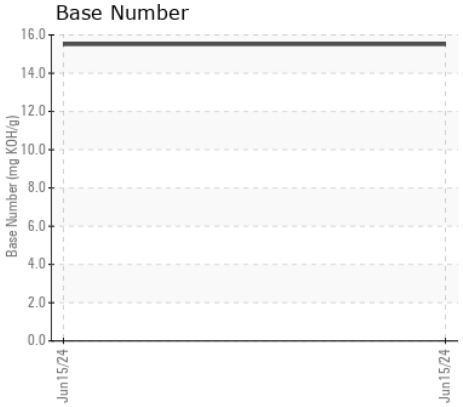

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : TR06217046 **Received** : 21 Jun 2024
**Lab Number** : 06217046 **Tested** : 24 Jun 2024
**Unique Number** : 11089910 **Diagnosed** : 24 Jun 2024 - Jonathan Hester
**Test Package** : MOB 2 ( Additional Tests: Glycol, KF, KV40, TAN Man )

*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)*

**CLAY NOBLIT**
21520 TWP RD 185
FOREST, OH
US 45843
Contact: DEAN WISE

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F: