



OIL REPORT

LAB NUMBER: Q03369
 REPORT DATE: 8/5/2022
 CODE: 20/68

UNIT ID: 95 CHEROKEE
 CLIENT ID: 95673
 PAYMENT: CC: Visa

| | | |
|-------------|------------------------------------|---------------------------------------|
| UNIT | MAKE/MODEL: Jeep 4.0L Inline 6 cyl | OIL TYPE & GRADE: Harvest King 15W/40 |
| | FUEL TYPE: Gasoline (Unleaded) | OIL USE INTERVAL: 5,000 Miles |
| | ADDITIONAL INFO: Jeep, XJ, 4x4 | |

| | | |
|---------------|----------------------|--|
| CLIENT | JOSHUA DOWNS | PHONE: (940) 452-1721 |
| | 1990 COUNTY RD 1032 | FAX: |
| | GREENVILLE, TX 75401 | ALT PHONE: |
| | | EMAIL: joshua.d.downs@gmail.com, jeepinbanditrider@gmail.com |
| | | |

COMMENTS
 JOSH: We found iron and lead a bit higher than they've been as of late, with lead more than twice average (hence the highlight). The increases aren't cautionary, though, especially with the levels still matching up closely with samples taken in late 2020/mid 2021. The slight change in wear could be due to a difference in operation (e.g. increased idling, short trips, off-road), so we'll just look for stability or decreases at the next oil change. The viscosity was only a hair below spec, and unrelated to excess fuel. No coolant found. Try sampling again in about 5,000 miles.

| ELEMENTS IN PARTS PER MILLION | MI/HR on Oil | 5,000 | UNIT / LOCATION AVERAGES | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | UNIVERSAL AVERAGES |
|--------------------------------------|-------------------|-----------|---------------------------------|-----------|------------|-----------|-----------|------------|---------------------------|
| | MI/HR on Unit | 247,290 | | 242,512 | 237,422 | 232,491 | 227,424 | 222,345 | |
| | Sample Date | 7/23/2022 | | 3/22/2022 | 10/30/2021 | 6/29/2021 | 3/15/2021 | 10/29/2020 | |
| | Make Up Oil Added | 0.5 qts | | 1 qt | 0.5 qts | 0.5 qts | 0.5 qts | 1 qt | |
| ALUMINUM | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| CHROMIUM | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| IRON | 20 | 19 | 15 | 12 | 20 | 24 | 18 | 24 | 24 |
| COPPER | 4 | 4 | 3 | 3 | 3 | 4 | 5 | 4 | 4 |
| LEAD | 6 | 5 | 3 | 3 | 4 | 5 | 5 | 2 | 2 |
| TIN | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| MOLYBDENUM | 51 | 18 | 11 | 3 | 11 | 4 | 11 | 72 | 72 |
| NICKEL | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| MANGANESE | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| SILVER | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TITANIUM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| POTASSIUM | 5 | 9 | 4 | 5 | 9 | 14 | 11 | 4 | 4 |
| BORON | 4 | 5 | 4 | 3 | 7 | 6 | 3 | 52 | 52 |
| SILICON | 15 | 15 | 19 | 12 | 14 | 14 | 15 | 15 | 15 |
| SODIUM | 12 | 18 | 13 | 9 | 17 | 22 | 24 | 44 | 44 |
| CALCIUM | 1265 | 2031 | 2068 | 2163 | 2298 | 2394 | 2128 | 1780 | 1780 |
| MAGNESIUM | 805 | 217 | 152 | 19 | 25 | 34 | 68 | 261 | 261 |
| PHOSPHORUS | 873 | 893 | 877 | 846 | 884 | 920 | 912 | 736 | 736 |
| ZINC | 1061 | 1063 | 1008 | 980 | 1063 | 1137 | 1047 | 860 | 860 |
| BARIUM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Values Should Be*

| | | | | | | | | |
|-------------------|-----------------------|------|-----------|-------|-------|-------|-------|-------|
| PROPERTIES | SUS Viscosity @ 210°F | 59.0 | 68-78 | 60.0 | 60.5 | 59.9 | 62.4 | 61.4 |
| | cSt Viscosity @ 100°C | 9.92 | 12.4-15.3 | 10.22 | 10.37 | 10.20 | 10.90 | 10.60 |
| | Flashpoint in °F | 395 | >390 | 410 | 400 | 395 | 410 | 400 |
| | Fuel % | <0.5 | <2.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | Antifreeze % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Water % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Insolubles % | 0.2 | <0.6 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 |
| | TBN | | | | | | | |
| | TAN | | | | | | | |
| | ISO Code | | | | | | | |

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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