

OIL ANALYSIS REPORT

Sample Rating Trend





Gasoline Engine Fluid NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

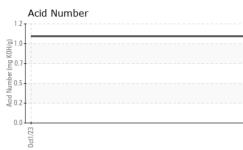
The AN level is acceptable for this fluid.

| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|----------|-------------|------------|-------------|----------|----------|
| Sample Number | | Client Info | | WCM2308307 | | |
| Sample Date | | Client Info | | 01 Oct 2023 | | |
| Machine Age | mls | Client Info | | 0 | | |
| Oil Age | mls | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINATION | ۷ | method | limit/base | current | history1 | history2 |
| Glycol | | WC Method | | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >150 | 11 | | |
| Chromium | ppm | ASTM D5185m | >20 | 0 | | |
| Nickel | ppm | ASTM D5185m | >5 | 0 | | |
| Titanium | ppm | ASTM D5185m | | <1 | | |
| Silver | ppm | ASTM D5185m | >2 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >40 | <1 | | |
| Lead | ppm | ASTM D5185m | >50 | <1 | | |
| Copper | ppm | ASTM D5185m | >155 | 2 | | |
| Tin | ppm | ASTM D5185m | >10 | <1 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 148 | | |
| Barium | ppm | ASTM D5185m | | 0 | | |
| Molybdenum | ppm | ASTM D5185m | | 635 | | |
| Manganese | ppm | ASTM D5185m | | <1 | | |
| Magnesium | ppm | ASTM D5185m | | 468 | | |
| Calcium | ppm | ASTM D5185m | | 1430 | | |
| Phosphorus | ppm | ASTM D5185m | | 688 | | |
| Zinc | ppm | ASTM D5185m | | 861 | | |
| Sulfur | ppm | ASTM D5185m | | 2537 | | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >30 | 26 | | |
| Sodium | ppm | ASTM D5185m | >400 | 2 | | |
| Potassium | ppm | ASTM D5185m | >20 | 2 | | |
| Fuel | % | ASTM D3524 | >4.0 | <1.0 | | |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | *ASTM D7844 | | 0 | | |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.1 | | |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.6 | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 17.3 | | |
| Acid Number (AN) | mg KOH/g | | - | 1.05 | | |
| | | | | | | |



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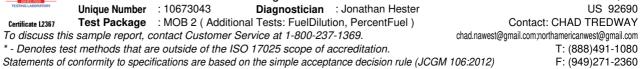
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| | | method | limit/base | current | history1 | history2 |
|--|---|---|--|--|---|---|
| White Metal | scalar | *Visual | NONE | NONE | | |
| Yellow Metal | scalar | *Visual | NONE | NONE | | |
| Precipitate | scalar | *Visual | NONE | NONE | | |
| Silt | scalar | *Visual | NONE | NONE | | |
| Debris | scalar | *Visual | NONE | NONE | | |
| Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| Appearance | scalar | *Visual | | NORML | | |
| | scalar | *Visual | | NORML | | |
| | | | | | | |
| | | | | | | |
| | | | 11 1. 1 | | | |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | | 6.7 | | |
| GRAPHS | | | | | | |
| Iron (ppm) | | | | Lead (ppm) | | |
| 500 T | | | 200 | T | | |
| 100 | | | 150 | Severe | | |
| 5 ³⁰⁰ | | | Ē.100 | | | |
| ²⁰⁰ Abnormal | | | | Abnormal | | |
| 100- | | | | | | |
| 3 | | | 0 | 723 | | r r |
| 0ct1) | | | 0ct1/ | 0ct1, | | |
| Aluminum (nnm) | | | | Chromium (n |) | |
| ¹⁰⁰ Severe | | | 50 | | | |
| 80 - | | | 40 | Severe | | |
| E 60 | | | E 30 | | | |
| Abnormal | | | ^읍 20 | Abnormal | | |
| 20 | | | 10 | | | |
| | | | 0 | | | |
| Jet1/2 | | | 0ct1/2. | Jct1/2 | | |
| | | | - | | | |
| ³⁰⁰ | | | 80 | | | |
| 250 - Severe | | | | | | |
| 200 - Abnormal | | | | | | |
| d 130 | | | <u> </u> 40 | Abnormal | | |
| | | | 20 | | | |
| 0 | | | 0 | L | | |
| ct1/23 | | | ct1/23 | ct1/23 | | 2017-0 |
| | | | 0 | | | ć |
| 14 | | | 1.2 | Acid Number | | |
| Abnormal | | | (B)H 10 | | | |
| | | | Q I.U Ban | | | |
| 12 $\widehat{\mathbf{O}}$ 10 - Abnormal | | | | | | |
| | | | <u></u> | 1 | | |
| O. | | | tuny 0.5 | | | |
| | | | (0)1.0 Bill 1.0 Bill | | | |
| | Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPERT Visc @ 100°C GRAPHS Iron (ppm) Abnormal Abnormal Copper (ppm) | Precipitate scalar Silt scalar Debris scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar FLUID PROPERTIES Visc @ 100°C cSt GRAPHS Iron (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Severe | Precipitate scalar *Visual Silt scalar *Visual Debris scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Emulsified Water scalar *Visual Eree Water scalar *Visual Free Water scalar *Visual Aunomal Aluminum (ppm) Aluminum (ppm) Copper (ppm) Servere Anomal Servere | Precipitate scalar *Visual NONE Silt scalar *Visual NONE Debris scalar *Visual NONE Appearance scalar *Visual NORML Odor scalar *Visual NORML Emulsified Water scalar *Visual NORML Emulsified Water scalar *Visual >0.2 Free Water scalar *Visual >0.2 Full D PROPERTIES method imit/base Visc @ 100°C cSt ASTM D445 GRAPHS Iron (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Sub State St | Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG Free Water scalar *Visual >0.2 NEG Fullid PROPERTIES method limit/base current Visc @ 100°C cSt ASTM D445 6.7 GRAPHS Iron (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Copper (ppm) Silicon (ppm) Copper (ppm) | Precipitate scalar *Visual NONE NONE Sitt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Codor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Free Water scalar *Visual NORML NEG Free Water scalar *Visual NORML NEG Free Water scalar *Visual NORML NEG Free Water scalar *Visual NORML NEG FLUID PROPERTIES method imit/base current history1 Visc @ 100°C cSt ASTM D445 6.7 GRAPHS Iron (ppm) Aluminum (ppm) Copper (ppm) |

14 12 cSt (100°C) 8 Abnorma 4 0ct1/23

Viscosity @ 100°C



Contact/Location: CHAD TREDWAY - NORLAD