# OIL ANALYSIS REPORT

Sample Rating Trend


NORMAL

Machine Id
## DODGE 61619
Component
**Diesel Engine**
Fluid
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination 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.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0877310** | --- | --- |
| Sample Date | | Client Info | | **20 Nov 2023** | --- | --- |
| Machine Age | mls | Client Info | | **182306** | --- | --- |
| Oil Age | mls | Client Info | | **5473** | --- | --- |
| Oil Changed | | Client Info | | **Changed** | --- | --- |
| Sample Status | | | | **NORMAL** | --- | --- |

| CONTAMINATION | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Fuel | WC Method | >5 | **<1.0** | --- | --- |
| Water | WC Method | >0.2 | **NEG** | --- | --- |
| Glycol | WC Method | | **NEG** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >100 | **49** | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | **2** | --- | --- |
| Nickel | ppm | ASTM D5185m | >4 | **<1** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | **7** | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | **1** | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | **2** | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | **<1** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 250 | **56** | --- | --- |
| Barium | ppm | ASTM D5185m | 10 | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | **75** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | 450 | **568** | --- | --- |
| Calcium | ppm | ASTM D5185m | 3000 | **1162** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | **819** | --- | --- |
| Zinc | ppm | ASTM D5185m | 1350 | **931** | --- | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | **2743** | --- | --- |

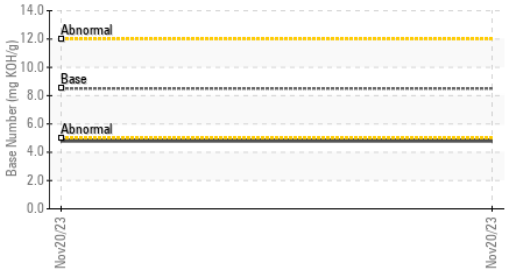
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **18** | --- | --- |
| Sodium | ppm | ASTM D5185m | >158 | **4** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **8** | --- | --- |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | >3 | **0.9** | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **15.6** | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **28.4** | --- | --- |

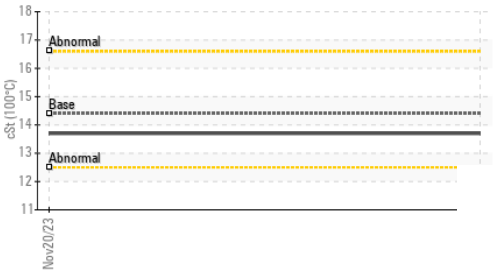
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **32.0** | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | **4.8** | --- | --- |

# OIL ANALYSIS REPORT

Base Number




Viscosity @ 100°C

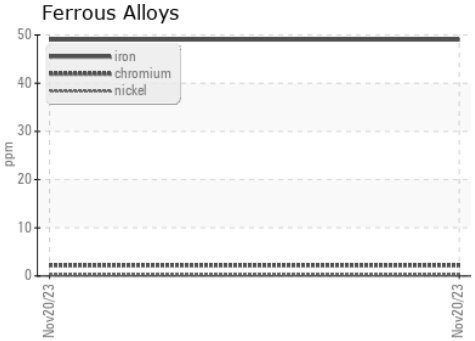



| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Debris | scalar | *Visual | NONE | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

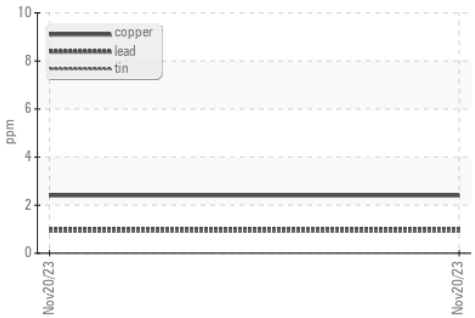
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | **13.7** | --- | --- |

## GRAPHS

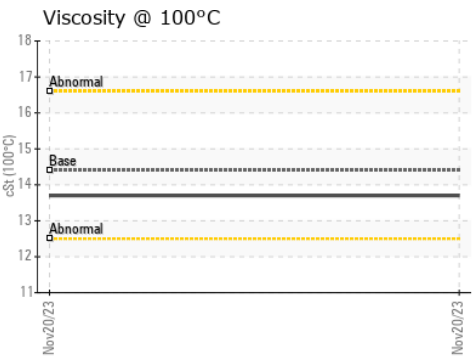
Ferrous Alloys



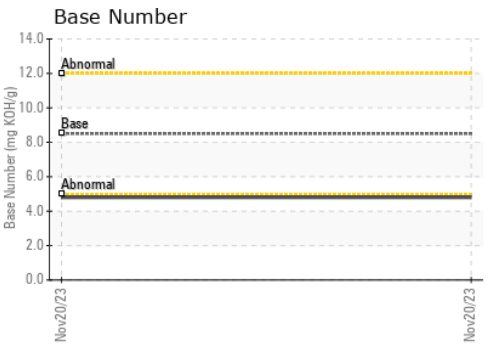

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

| | | | |
|---|---|---|---|
| **Laboratory** | : WearCheck USA - 501 Madison Ave., Cary, NC 27513 | | |
| **Sample No.** | : WC0877310 | **Recieved** | : 01 Feb 2024 |
| **Lab Number** | : 06077457 | **Diagnosed** | : 04 Feb 2024 |
| **Unique Number** | : 10859548 | **Diagnostician** | : Don Baldridge |
| **Test Package** | : FLEET | | |

*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)*


**LTI/MILKY WAY - MOUNT VERNON**
3814 OLD HWY 99 S RD
MOUNT VERNON, WA
US 98273
Contact: JOHN VAN WINGERDEN
jvw@lynden.com
T: (360)354-2101
F: (360)354-3571