MOB II LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

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

Machine Id
## Smith Ridge 1
Component
## Natural Gas Engine
Fluid
## CITGO PACEMAKER GAS ENGIN 1700 SERIES 40W (--- GAL)

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

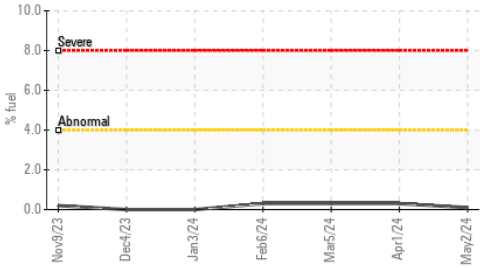
Fuel content negligible. There is no indication of any contamination in the oil.

## FLUID CONDITION

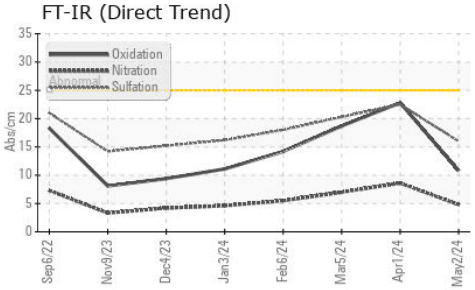
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | PCA0117195 | PCA0117146 | PCA0117144 |
| Sample Date | | Client Info | | 02 May 2024 | 01 Apr 2024 | 05 Mar 2024 |
| Machine Age | hrs | Client Info | | 186556 | 185876 | 185258 |
| Oil Age | hrs | Client Info | | 237 | 185876 | 185258 |
| Filter Age | hrs | Client Info | | 237 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | SEVERE | ABNORMAL |
| Iron | ppm | ASTM D5185m | >50 | 3 | 10 | 5 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 2 | 1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | <1 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >30 | 11 | ▲ 94 | ▲ 39 |
| Copper | ppm | ASTM D5185m | >35 | 5 | 16 | 11 |
| Tin | ppm | ASTM D5185m | >4 | 1 | 2 | 1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | LIGHT | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >+100 | 2 | 3 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 3 | 2 |
| Fuel | % | ASTM D3524 | >4.0 | 0.1 | 0.3 | 0.3 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0 | 0.1 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 4.8 | 8.6 | 7.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 16.0 | 22.5 | 20.3 |
| 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 |
| Sodium | ppm | ASTM D5185m | | 0 | 8 | 10 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 2 | 3 | 1 |
| Manganese | ppm | ASTM D5185m | | <1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 8 | 19 | 22 |
| Calcium | ppm | ASTM D5185m | | 1366 | 1620 | 1517 |
| Phosphorus | ppm | ASTM D5185m | | 303 | 351 | 318 |
| Zinc | ppm | ASTM D5185m | | 363 | 430 | 419 |
| Sulfur | ppm | ASTM D5185m | | 2867 | 2916 | 2489 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 10.8 | 22.8 | 18.7 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.76 | ▲ 2.60 | 1.90 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 3.43 | ▲ 2.36 | 3.12 |
| Visc @ 100°C | cSt | ASTM D445 | | 13.5 | 14.8 | 14.2 |

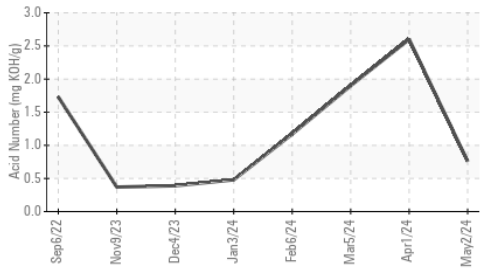
Fuel Dilution



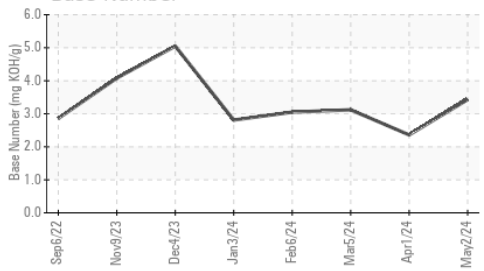

FT-IR (Direct Trend)



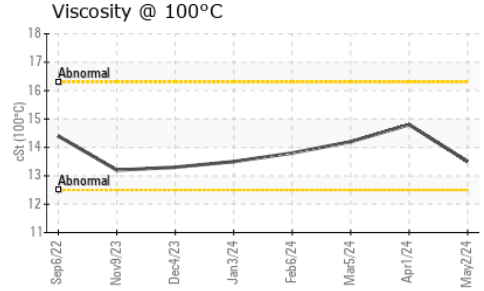

Acid Number



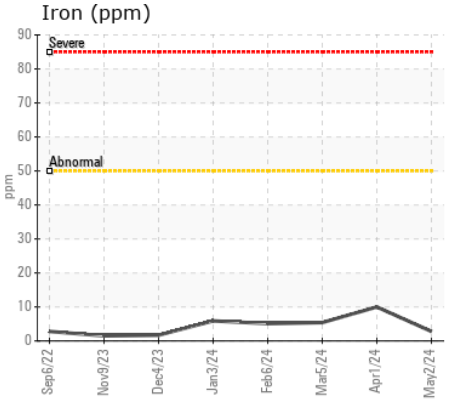

Base Number



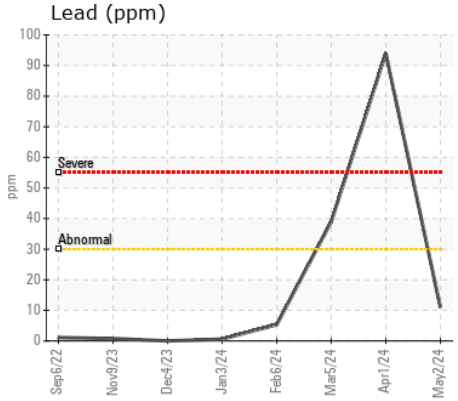

Viscosity @ 100°C



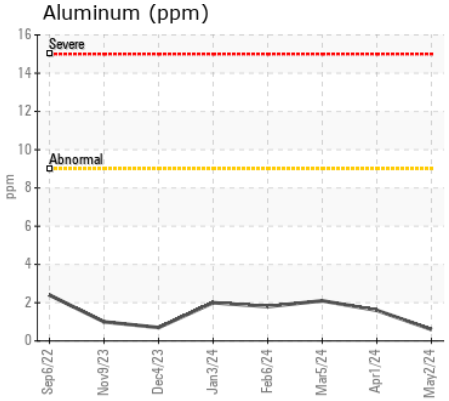

Iron (ppm)



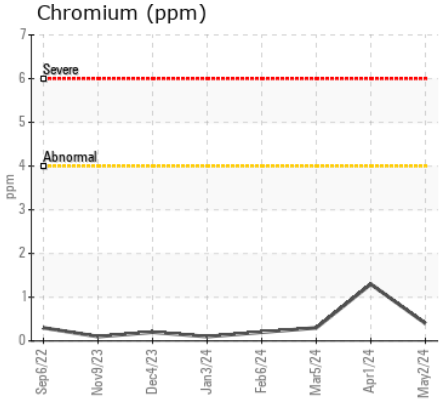

Lead (ppm)



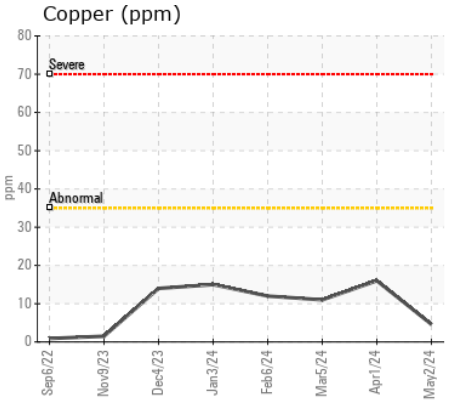

Aluminum (ppm)



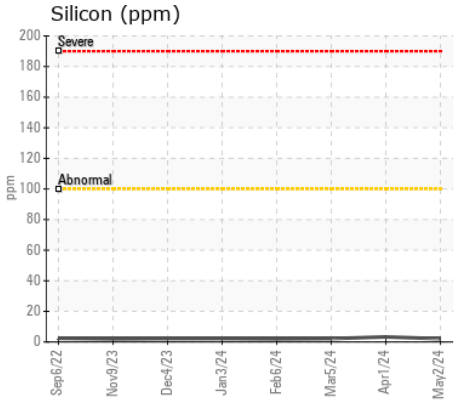

Chromium (ppm)



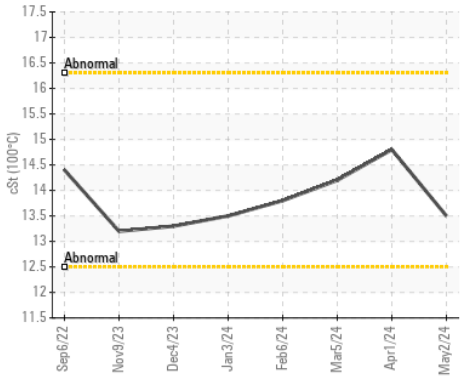

Copper (ppm)



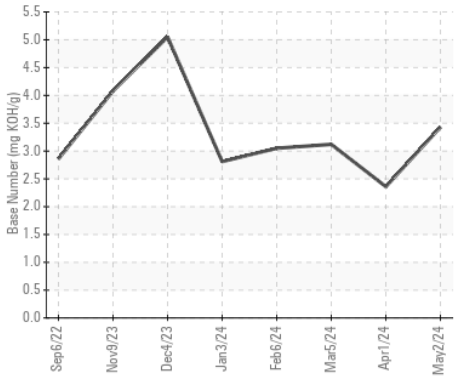

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0117195
**Lab Number** : 06174040
**Unique Number** : 11020093
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 09 May 2024
**Tested** : 15 May 2024
**Diagnosed** : 15 May 2024 - Wes Davis

**ENERVEST OPERATING - SMITH RIDGE**
2305 SMITH RIDGE
MCCLURE, VA
US 24269
Contact: Service Manager

*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)*

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