MOB II WEAR CHECK

# OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | ABNORMAL |
| FLUID CONDITION | ATTENTION |

Area
**GUAY SON [CONHER]**
Machine Id
**IBACO COZAR VII**
Component
**Main Diesel Engine**
Fluid
**RALOY 15W40 (160 LTR)**

## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. ( Customer Sample Comment: Fluid: Raloy 15W40 )

## WEAR

All component wear rates are normal.

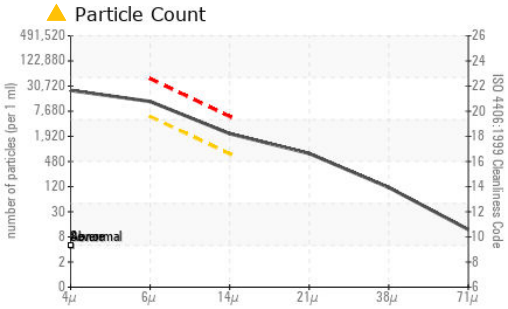
## CONTAMINATION

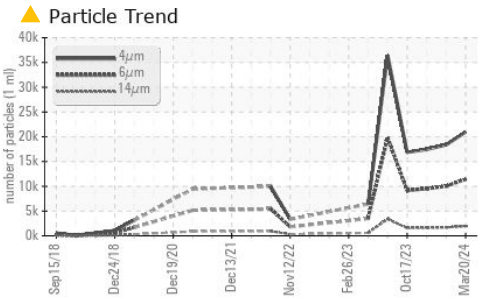
There is a high amount of particulates present in the oil. Light fuel dilution occurring.

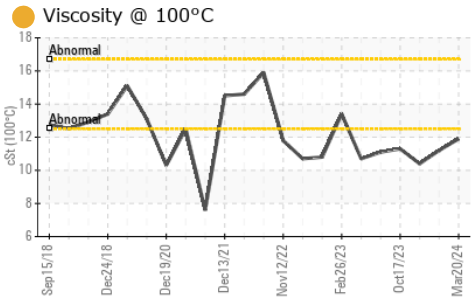
## FLUID CONDITION

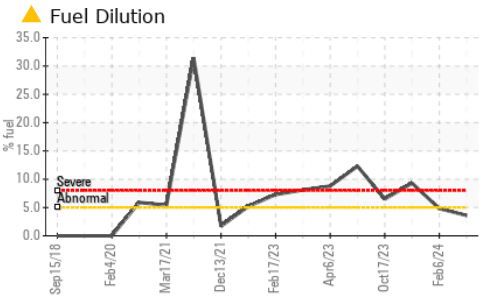
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

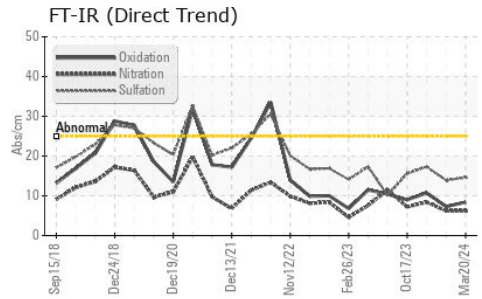
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | KL0014184 | KL0014152 | KL0013354 |
| Sample Date | | Client Info | | 20 Mar 2024 | 06 Feb 2024 | 01 Nov 2023 |
| Machine Age | hrs | Client Info | | 0 | 19453 | 17869 |
| Oil Age | hrs | Client Info | | 0 | 390 | 345 |
| Filter Age | hrs | Client Info | | 0 | 390 | 345 |
| Oil Changed | | Client Info | | N/A | Not Changd | Not Changd |
| Filter Changed | | Client Info | | N/A | Not Changd | Not Changd |
| Sample Status | | | | ABNORMAL | ABNORMAL | SEVERE |
| Iron | ppm | ASTM D5185m | >100 | 8 | 12 | 20 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 1 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >40 | 2 | <1 | 5 |
| Copper | ppm | ASTM D5185m | >330 | 21 | 19 | 120 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 10 | 8 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 16 | 28 | 61 |
| Fuel | % | ASTM D3524 | >5 | ▲ 3.6 | ▲ 4.8 | ▲ 9.3 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.1 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.2 | 6.2 | 8.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 14.6 | 13.9 | 17.3 |
| Particles >4µm | | ASTM D7647 | | 20958 | 18374 | 17443 |
| Particles >6µm | | ASTM D7647 | >5000 | ▲ 11417 | ▲ 10009 | ▲ 9502 |
| Particles >14µm | | ASTM D7647 | >640 | ▲ 1943 | ▲ 1703 | ▲ 1617 |
| Particles >21µm | | ASTM D7647 | >160 | ▲ 654 | ▲ 574 | ▲ 545 |
| Particles >38µm | | ASTM D7647 | >40 | ▲ 101 | ▲ 89 | ▲ 84 |
| Particles >71µm | | ASTM D7647 | >10 | 10 | 9 | 9 |
| Oil Cleanliness | | ISO 4406 (c) | >19/16 | ▲ 21/18 | ▲ 21/18 | ▲ 20/18 |
| 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 | >0.2 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 24 | 40 | 85 |
| Boron | ppm | ASTM D5185m | | 0 | 4 | 7 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 2 | 5 | 23 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 4 | 11 | 51 |
| Calcium | ppm | ASTM D5185m | | 2732 | 2429 | 2445 |
| Phosphorus | ppm | ASTM D5185m | | 1113 | 1004 | 1072 |
| Zinc | ppm | ASTM D5185m | | 1272 | 1223 | 1300 |
| Sulfur | ppm | ASTM D5185m | | 4069 | 2919 | 3600 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 8.4 | 7.3 | 10.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 9.81 | 10.26 | 10.41 |
| Visc @ 100°C | cSt | ASTM D445 | | 11.9 | ▲ 11.2 | ▲ 10.4 |

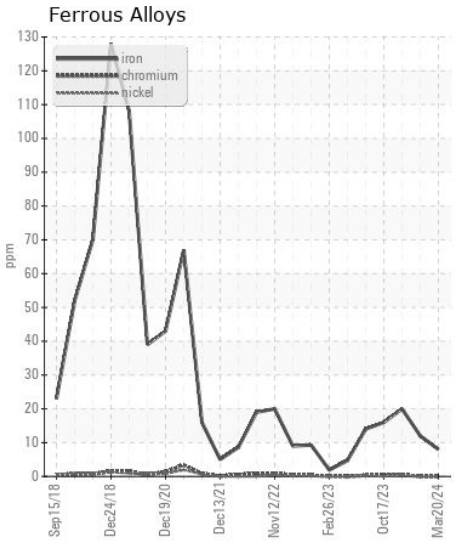


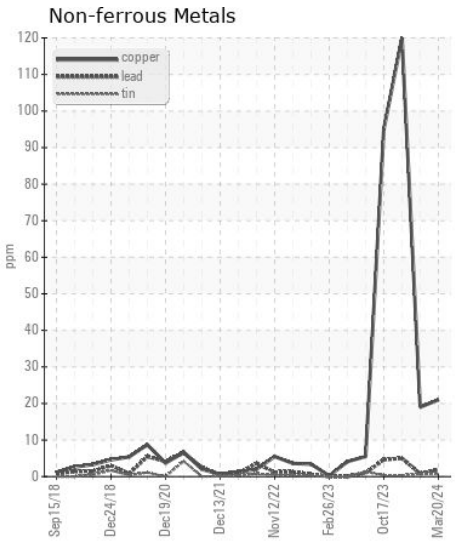



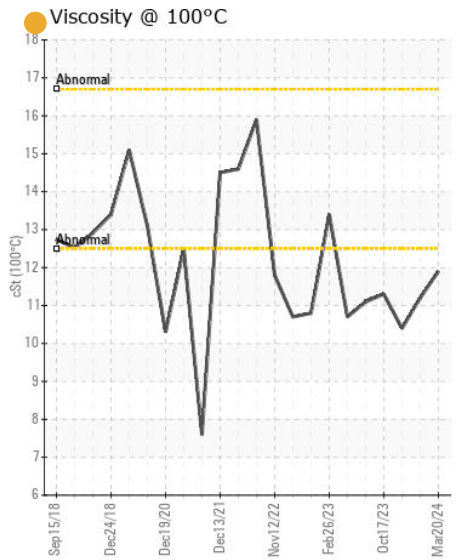



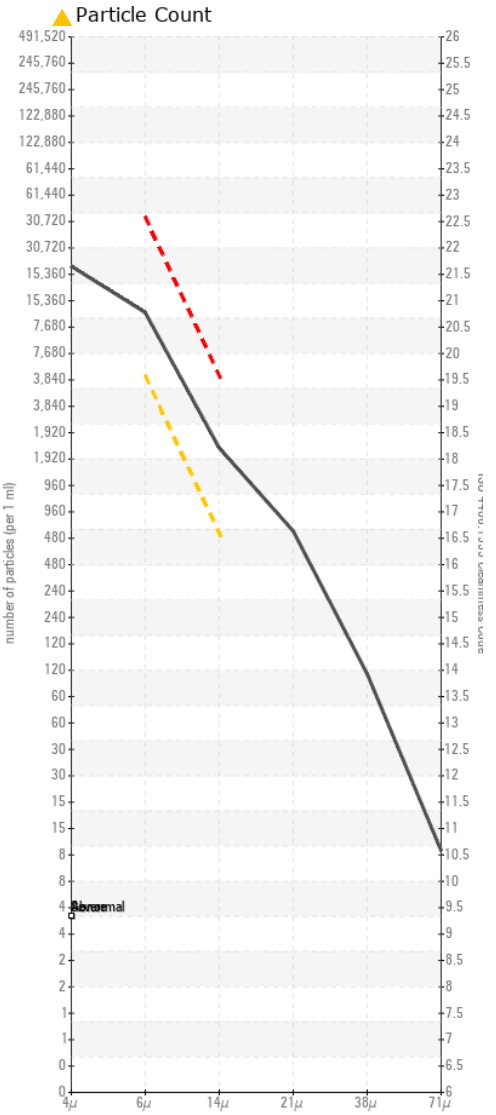



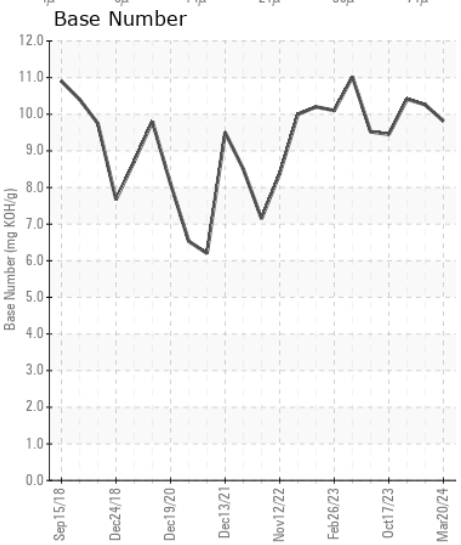




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KL0014184 **Received** : 18 Apr 2024
**Lab Number** : 06153292 **Tested** : 23 Apr 2024
**Unique Number** : 10983370 **Diagnosed** : 23 Apr 2024 - Don Baldridge
**Test Package** : MOB 2 ( Additional Tests: PercentFuel, PrtCount )

*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)*

**CONOR**
JUAREZ 348
HERMOSILLO,
MX 83140
Contact: EDUARDO GARCIA
egarcia.comsa@gmail.com
T: (526)622-1581 x:81
F: x: