

Machine Id **TOYOTA 846-4634** Component **Diesel Engine** Fluid **MOBIL DELVAC ELITE 15W40 (--- GAL)**

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

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All component wear rates are normal.

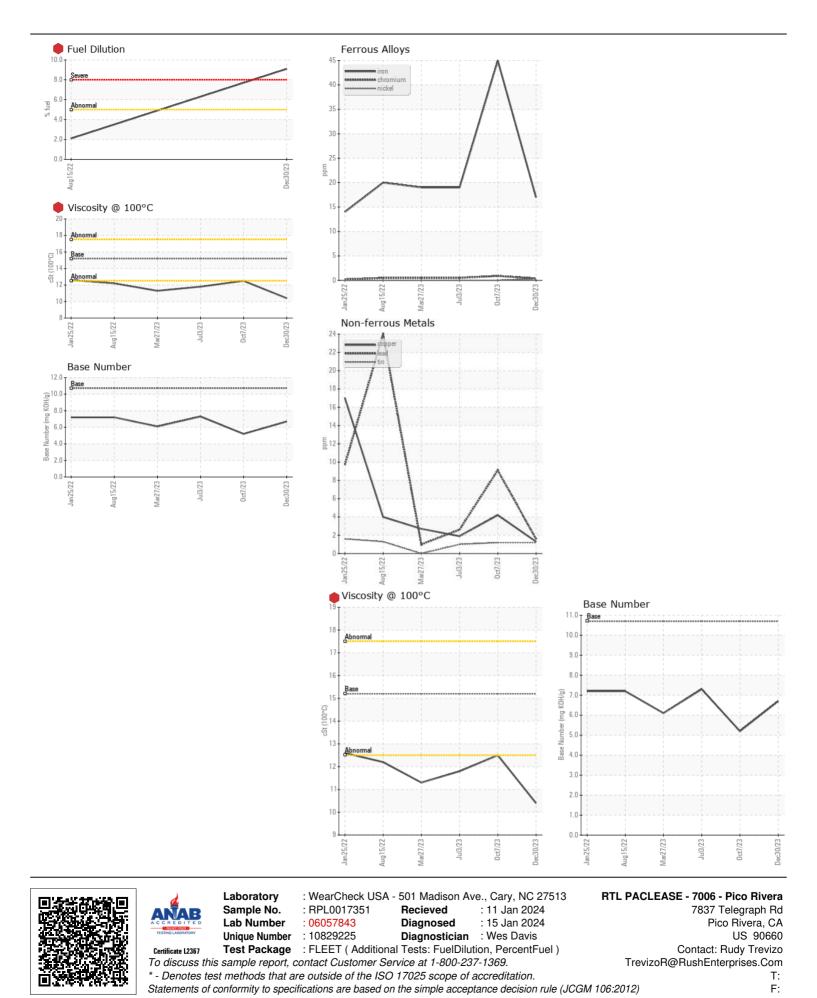
CONTAMINATION

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sample Date Client Info 30 Dec 2023 07 Oct 2023 03 Jul 202 Machine Age mls Client Info 134531 124385 114555 Oil Age mls Client Info 10146 19394 9564 Filter Age mls Client Info Not Changd Changed Not Changd Filter Changed Client Info Not Changd Changed Not Changd Filter Changed Client Info Not Changd Changed Not Changd Sample Status - Not Changd Changed Changed Iron ppm ASTM D5185m >100 17 45 19 Chromium ppm ASTM D5185m >20 <1 <1 <1 <1 Nickel ppm ASTM D5185m >20 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <							
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Sodium ppm ASTM D5185m 0 3 2 Boron ppm ASTM D5185m 0 0 2 Barium ppm ASTM D5185m 0 0 2 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 57 59 62 Manganese ppm ASTM D5185m <1 1 <1 Magnesium ppm ASTM D5185m 906 851 990 Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOHg ASTM D2896 10.7 6.7 <td< th=""><th>Odor</th><th>scalar</th><th>*Visual</th><th>NORML</th><th>NORML</th><th>NORML</th><th>NORML</th></td<>	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Boron ppm ASTM D5185m 0 0 2 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 57 59 62 Manganese ppm ASTM D5185m <1 1 <1 Magnesium ppm ASTM D5185m 906 851 990 Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Boron ppm ASTM D5185m 0 0 2 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 57 59 62 Manganese ppm ASTM D5185m <1 1 <1 Magnesium ppm ASTM D5185m 906 851 990 Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3							
Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 57 59 62 Manganese ppm ASTM D5185m <1 1 <1 Magnesium ppm ASTM D5185m 906 851 990 Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7141 >25 22.1 30.2 22.0 Base Number (BN) mg K0Hig ASTM D2896 10.7 6.7 5.2 7.3	Sodium	ppm	ASTM D5185m		0	3	
Molybdenum ppm ASTM D5185m 57 59 62 Manganese ppm ASTM D5185m <1 1 <1 Magnesium ppm ASTM D5185m 906 851 990 Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm<*ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOHig ASTM D2896 10.7 6.7 5.2 7.3	Boron	ppm	ASTM D5185m		0	0	2
Manganese ppm ASTM D5185m <1		ppm	ASTM D5185m				
Magnesium ppm ASTM D5185m 906 851 990 Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Molybdenum	ppm	ASTM D5185m		57	59	62
Calcium ppm ASTM D5185m 974 1036 1124 Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Manganese	ppm	ASTM D5185m		<1	1	<1
Phosphorus ppm ASTM D5185m 959 819 1058 Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Magnesium	ppm	ASTM D5185m		906	851	990
Zinc ppm ASTM D5185m 1203 1056 1278 Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOHg ASTM D2896 10.7 6.7 5.2 7.3	Calcium	ppm	ASTM D5185m		974	1036	1124
Sulfur ppm ASTM D5185m 2891 2455 3717 Oxidation Abs/.tmm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Phosphorus	ppm	ASTM D5185m		959	819	1058
Oxidation Abs/.1mm *ASTM D7414 >25 22.1 30.2 22.0 Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Zinc	ppm	ASTM D5185m		1203	1056	1278
Base Number (BN) mg KOH/g ASTM D2896 10.7 6.7 5.2 7.3	Sulfur	ppm	ASTM D5185m		2891	2455	3717
	Oxidation	Abs/.1mm	*ASTM D7414	>25	22.1	30.2	22.0
	Base Number (BN)	mg KOH/g	ASTM D2896	10.7	6.7	5.2	7.3
	Visc @ 100°C		ASTM D445	15.2	10.4	12.5	1 1.8



Submitted By: TECHNICIAN ACCOUNT