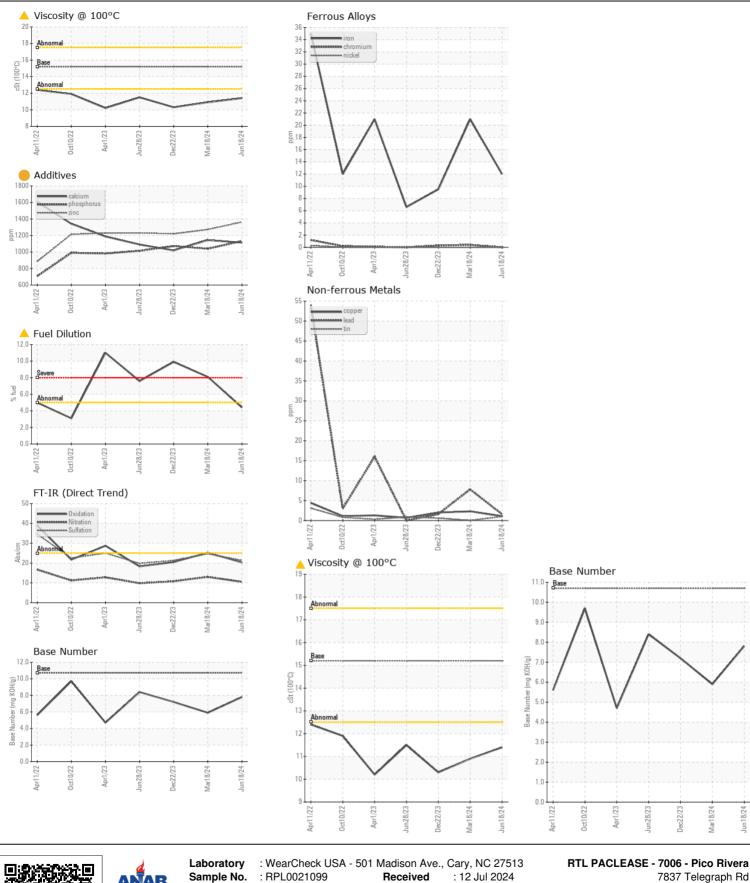
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL MARGINAL ABNORMAL

Machine Id

TOYOTA 8464093 Component Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		RPL0021099	RPL0017946	RPL001734
	Sample Date		Client Info		18 Jun 2024	18 Mar 2024	22 Dec 202
	Machine Age	mls	Client Info		244740	235583	231485
	Oil Age	mls	Client Info		9157	12425	22176
	Filter Age	mls	Client Info		9157	12425	22176
	Oil Changed		Client Info		Not Changd	Changed	Not Chang
	Filter Changed		Client Info		Not Changd	Changed	Not Chang
	Sample Status				ABNORMAL	SEVERE	SEVERE
WEAR	Iron	ppm	ASTM D5185m	>100	12	21	10
MEAIL	Chromium	ppm	ASTM D5185m		0	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	3	3	2
	Lead	ppm	ASTM D5185m	>40	2	8	2
	Copper	ppm	ASTM D5185m	>330	1	2	2
	Tin	ppm	ASTM D5185m	>15	1	0	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	nnm	ASTM D5185m	- 25	4	2	3
CONTAMINATION	Potassium	ppm	ASTM D5185m		4 2	3	0
Light fuel dilution occurring.	Fuel	ppm %	ASTM D3163111		∠ ▲ 4.4	▲ 8.1	9.9
	Water	70	WC Method		NEG	NEG	NEG
	Glycol		WC Method	70.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.5	0.8	0.5
	Nitration	Abs/cm	*ASTM D7624	>20	10.5	13.0	10.8
	Sulfation	Abs/.1mm	*ASTM D7415		21.3	24.7	21.3
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
THE CONDITION	011		AOTA DEADE				
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	2	1
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 condition of the oil is suitable for further service.	Boron Barium	ppm	ASTM D5185m ASTM D5185m		5 0	<1 0	0
	Molybdenum	ppm	ASTM D5185m		61	62	60
	Manganese	ppm ppm	ASTM D5165III		0	<1	<1
	Magnesium	ppm	ASTM D5185m		997	1038	931
	Calcium	ppm	ASTM D5185m		1113	1144	1019
	Phosphorus	ppm	ASTM D5185m		1113	1039	1072
	Zinc	ppm	ASTM D5185m		1363	1272	1220
	Sulfur	ppm	ASTM D5185m		3920	3595	2908
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	25.2	20.5
	Base Number (BN)				7.8	5.9	7.2
	Visc @ 100°C	cSt	ASTM D445		▲ 11.4	△ 10.9	1 0.3







Certificate L2367

Sample No.

Lab Number : 06234495

Unique Number : 11123329

: RPL0021099

Tested Diagnosed Test Package: FLEET (Additional Tests: PercentFuel)

: 16 Jul 2024 : 16 Jul 2024 - Wes Davis

7837 Telegraph Rd Pico Rivera, CA US 90660 Contact: GERARDO CARROLA

carrolag@rushenterprises.com T:

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)

F: