

Machine Id **39** Component **Diesel Engine** Fluid **DURAMAX 10W30 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		DC0033574	DC0020768	DC0012230
	Sample Date		Client Info		29 Mar 2024	31 May 2022	07 Oct 2021
	Machine Age	mls	Client Info		277809	230280	200280
	Oil Age	mls	Client Info		25000	30000	30170
	Filter Age	mls	Client Info		25000	30000	30170
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	15	17	13
	Chromium	ppm	ASTM D5185m		<1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	<1
	Aluminum	ppm	ASTM D5185m		4	5	5
	Lead	ppm	ASTM D5185m		<1	<1	<1
	Copper	ppm	ASTM D5185m		2	1	1
	Tin	ppm	ASTM D5185m		<1	<1	0
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	9	7	7
OUTAMINATION	Potassium	ppm	ASTM D5185m		7	5	13
There is no indication of any contamination in the oil.	Fuel	pp	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.6	0.7	0.6
	Nitration	Abs/cm	*ASTM D7624		9.6	10.5	9.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	21.5	20.7
	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
FLUID CONDITION	Sodium	ppm	ASTM D5185m		0	1	1
	Boron	ppm	ASTM D5185m		2	4	0
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		2	0	0
	Molybdenum	ppm	ASTM D5185m		60	57	58
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		822	888	943
	Calcium	ppm	ASTM D5185m		1245	1173	1231
	Phosphorus	ppm	ASTM D5185m		1008	976	1033
	Zinc	ppm	ASTM D5185m		1136	1220	1240
	Sulfur	ppm	ASTM D5185m		3089	2942	2753
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	16.8	16.2

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445

Visc @ 100°C cSt

7.2

12.1

12.5

7.6

11.7

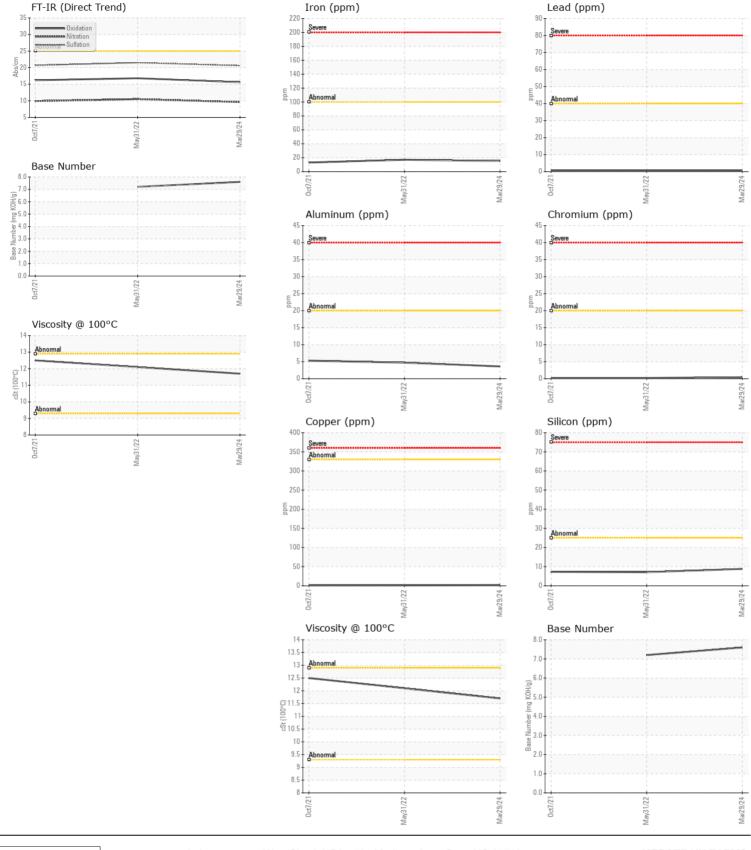
NORMAL

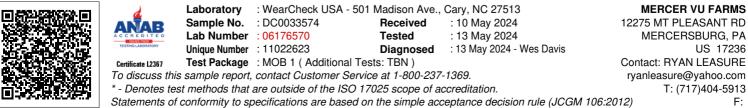
NORMAL

NORMAL

WEAR

CONTAMINATION FLUID CONDITION





Contact/Location: RYAN LEASURE - MERMERPA Page 2 of 2