

## Machine Id **20101** Component **Diesel Engine** Fluid **DURAMAX 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		DC0036012	DC0031540	DC0032696
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		09 May 2024	08 Mar 2024	30 Nov 2023
component make and model with your next sample.	Machine Age	hrs	Client Info		18955	18545	18183
	Oil Age	hrs	Client Info		350	300	250
	Filter Age	hrs	Client Info		350	300	250
	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	11	6	13
	Chromium	ppm	ASTM D5185m		<1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	<1
	Titanium	ppm	ASTM D5185m	~ 1	0	0	<1
	Silver	ppm	ASTM D5185m	>3	<1	0	0
	Aluminum	ppm	ASTM D5185m		3	2	2
	Lead	ppm	ASTM D5185m		<1	<1	<1
	Copper	ppm	ASTM D5185m		<1	<1	<1
	Tin	ppm		>15	<1	<1	<1
	Vanadium	ppm	ASTM D5185m	1.0	0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	4	5
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		2	2	3
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		1.4	0.7	1.1
	Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.1	8.2
	Sulfation	Abs/.1mm	*ASTM D7415		20.5	18.4	19.0
	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		4	1	3
	Boron	ppm	ASTM D5185m		<1	2	2
The BN result indicates that there is suitable alkalinity remaining in the	Barium	ppm	ASTM D5185m		0	0	12
oil. The condition of the oil is suitable for further service.	Molybdenum	ppm	ASTM D5185m		3	3	4
	Manganese	ppm	ASTM D5185m		<1	0	<1
	Magnesium	ppm	ASTM D5185m		52	48	57
	Calcium	ppm	ASTM D5185m		2439	2326	2792
	Phosphorus	ppm	ASTM D5185m		954	935	1090
	Zinc	ppm	ASTM D5185m		1110	1083	1270
	Sulfur	ppm	ASTM D5185m		4238	4010	4946
	Oxidation	Abs/.1mm	*ASTM D7414	>25	11.9	11.0	10.9
	Dece Number (DNI)		AOTH DOOOD		7.0	0.0	7 6

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445

Visc @ 100°C cSt

6.9

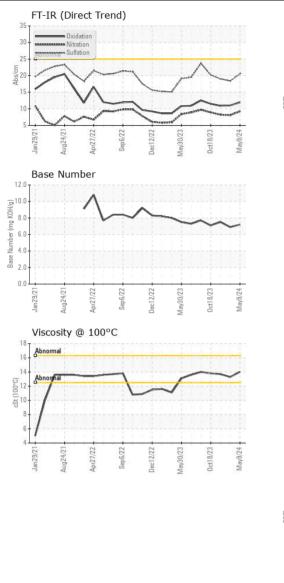
13.3

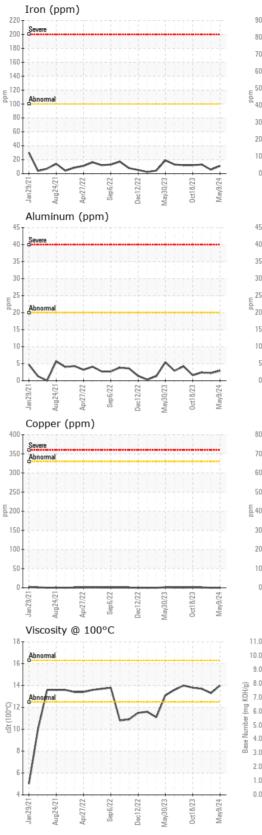
7.5

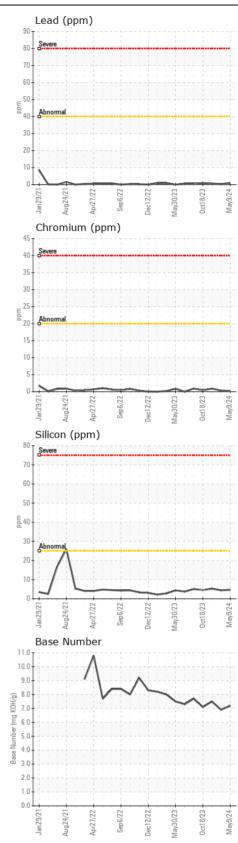
13.7

7.2

14.0







FRANCIS O DAY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : DC0036012 Received 14900 SOUTHLAWN LN : 28 May 2024 ROCKVILLE, MD Lab Number : 06193419 Tested : 30 May 2024 Unique Number : 11050171 : 30 May 2024 - Wes Davis US 20850 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: JAMIE FORESTER Certificate L2367 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. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: JAMIE FORESTER - FRAROCDC Page 2 of 2