

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id MISTER 20 - MISTER

## Component Diesel Engine

## **DURAMAX 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		DC0032290	DC0032294	DC0032051
	Sample Date		Client Info		26 Apr 2024	30 Jan 2024	02 Dec 2023
	Machine Age	hrs	Client Info		250	250	250
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	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	2	1	3
	Chromium	ppm	ASTM D5185m		0	<1	<1
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m		<1	<1	<1
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	<1	0
	Aluminum	ppm	ASTM D5185m		1	1	2
	Lead	ppm	ASTM D5185m		<1	1	<1
	Copper	ppm	ASTM D5185m		0	<1	<1
	Tin	ppm	ASTM D5185m		<1	<1	<1
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	4	4
CONTAMINATION	Potassium	ppm	ASTM D5185m		3	2	3
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	/ 0.1	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	6.3	5.8	6.0
	Sulfation	Abs/.1mm	*ASTM D7415		16.1	15.7	16.0
	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	NORMI
	Odor	scalar	*Visual	NORML	NORML	NORML	NORMI
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	0	0
	Boron	ppm	ASTM D5185m		5	8	3
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		0	0	12
	Molybdenum	ppm	ASTM D5185m		4	6	3
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		83	90	40
	Calcium	ppm	ASTM D5185m		2229	2114	2293
	Phosphorus	ppm	ASTM D5185m		899	933	928
	Zinc	ppm	ASTM D5185m		1041	994	1045
	Sulfur	ppm	ASTM D5185m		4165	4399	4154
	Oxidation	Abs/.1mm	*ASTM D3103/11	>25	9.3	9.1	8.9
	Base Number (BN)		ASTM D2896	~20	7.4	6.9	7.0
		- Ot			10.0	10.1	10.1

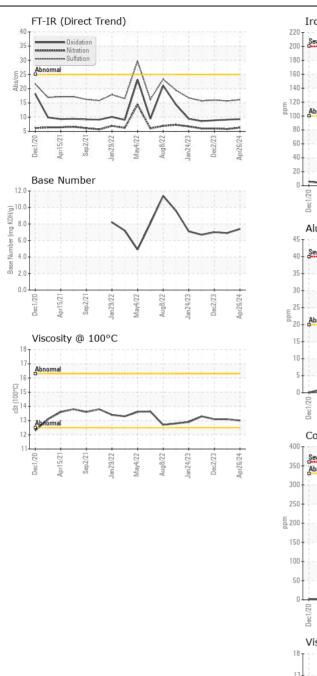
Visc @ 100°C cSt

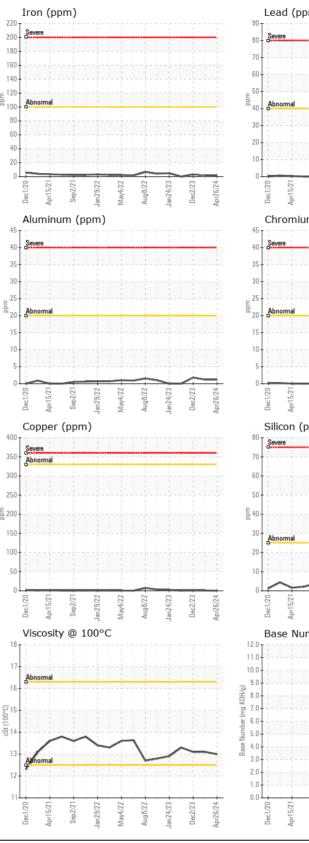
ASTM D445

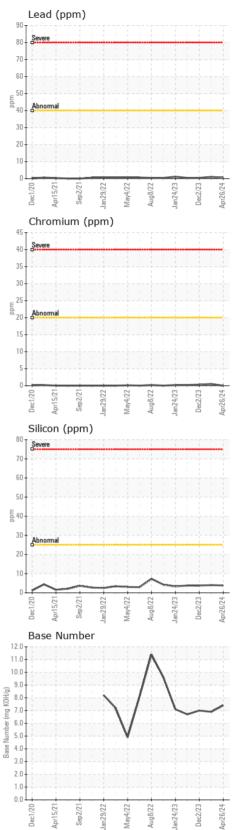
13.1

13.1

13.0







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SIMS ARG Sample No. : DC0032290 Received 3100 WEEDON STREET : 28 May 2024 Lab Number : 06193424 BALTIMORE, MD Tested : 30 May 2024 : 30 May 2024 - Wes Davis US 21226 Unique Number : 11050176 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: MARK NUZZO Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. mark.nuzzo@simsmm.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (410)355-1488 F: (410)355-5423 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: MARK NUZZO - BALBAL Page 2 of 2