

Machine Id **1711** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0897841	WC0897868	WC0878869
	Sample Date		Client Info		03 May 2024	08 Apr 2024	09 Mar 2024
	Machine Age	mls	Client Info		0	0	0
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	Changed
	Filter Changed		Client Info		N/A	N/A	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	9	8	9
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		<1	0	<1
	Silver	ppm	ASTM D5185m	>3	0	0	<1
	Aluminum	ppm	ASTM D5185m		6	3	3
	Lead	ppm	ASTM D5185m		۰ <1	0	0
	Copper	ppm	ASTM D5185m		2	0	1
	Tin	ppm	ASTM D5185m		- <1	<1	<1
	Vanadium	ppm	ASTM D5185m	210	<1	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION There is no indication of any contamination in the oil.	Silicon			. 05	44	10	
		ppm	ASTM D5185m		11 6	12 2	5 4
	Potassium Fuel	ppm	ASTM D5185m				
	Water		WC Method		<1.0 NEG	<1.0	<1.0 NEG
			WC Method	>0.2		NEG	
	Glycol	0/	WC Method	0	NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.3	0.4	0.3
	Nitration	Abs/cm	*ASTM D7624		9.0	9.4	8.9
	Sulfation	Abs/.1mm	*ASTM D7415		23.9	24.3	23.8
	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 Emulsified Water	scalar scalar	*Visual *Visual	NORML	NORML NEG	NORML NEG	NORMI NEG
		oodidi	Violai	20.L		THE G	HLC.
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	<1	2	<1
The DN requit indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m	250	0	2	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	10	2	0	2
	Molybdenum	ppm	ASTM D5185m	100	59	55	58
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m	450	848	885	873
	Calcium	ppm	ASTM D5185m	3000	1071	1000	1043
	Phosphorus	ppm	ASTM D5185m	1150	953	953	986
	Zinc	ppm	ASTM D5185m	1350	1107	1139	1164
	Sulfur	ppm	ASTM D5185m	4250	2850	3110	3101
	Oxidation	Abs/.1mm	*ASTM D7414	>25	25.5	26.7	26.1
	Base Number (BN)	mg KOH/q	ASTM D2896	8.5	6.5	5.4	6.4
	Vier @ 10000	- 01		444	10.0	10.0	10.0

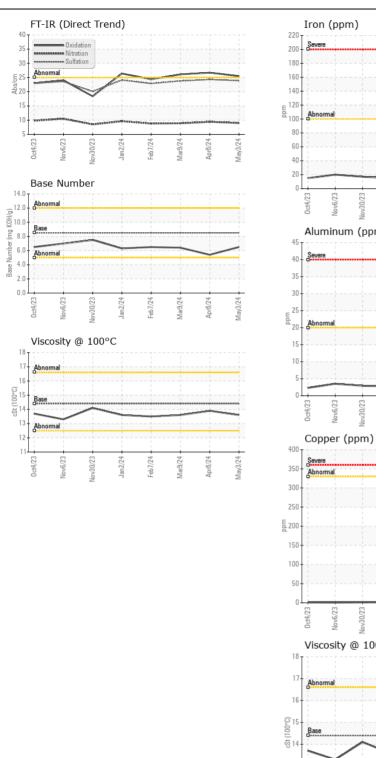
Visc @ 100°C cSt

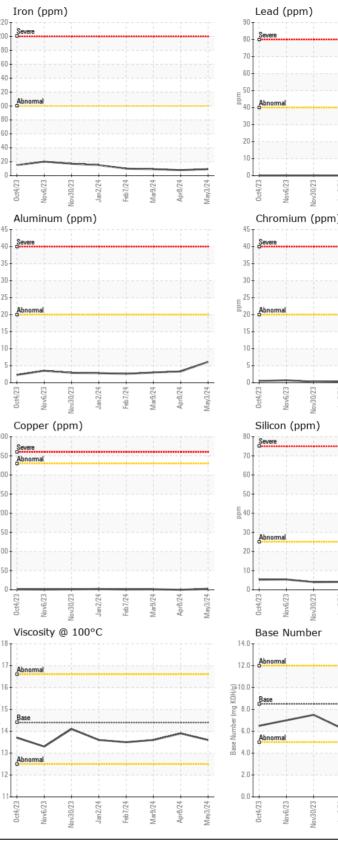
ASTM D445 14.4

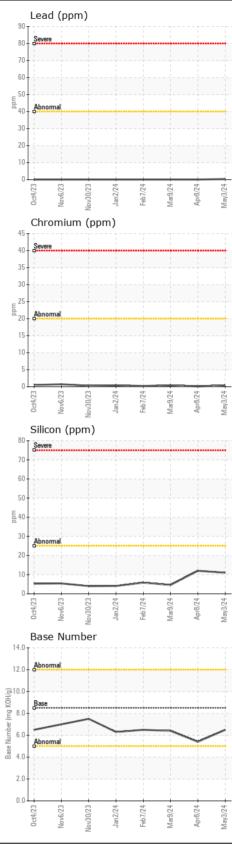
13.9

13.6

13.6







GO DURHAM - RAPT Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0897841 Received 1903 FAYETTEVILLE ST : 13 May 2024 Lab Number : 06176788 Tested DURHAM, NC : 14 May 2024 : 14 May 2024 - Sean Felton US 27701 Unique Number : 11022841 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: Robert Iosiniecki Certificate L2367 Robert.losiniecki@ratpdev.com 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)

Report Id: GODDUR [WUSCAR] 06176788 (Generated: 05/14/2024 15:34:56) Rev: 1

Contact/Location: Robert Iosiniecki - GODDUR Page 2 of 2