

WEAR	
CONTAMINATION	
FLUID CONDITION	NORMAL

Machine Id **55828** 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. Please specify the component make and model with your next sample.	Sample Number		Client Info		DC0036022	DC0032704	DC0031832
	Sample Date		Client Info		06 Jun 2024	22 Nov 2023	13 Sep 2023
component make and model with your next sample.	Machine Age	hrs	Client Info		841	652	426
	Oil Age	hrs	Client Info		200	200	270
	Filter Age	hrs	Client Info		200	200	270
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m	>100	7	8	5
	Chromium	ppm	ASTM D5185m		<1	<1	<1
	Nickel	ppm	ASTM D5185m		<1	<1	<1
	Titanium	ppm	ASTM D5185m		<1	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m		2	2	0
	Lead	ppm	ASTM D5185m		<1	0	<1
	Copper	ppm	ASTM D5185m	>330	4	6	5
	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		5	5	7
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		3	4	5
	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		0.1	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	7.0	7.0	6.9
	Sulfation	Abs/.1mm	*ASTM D7415		16.8	17.2	16.2
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	NORML	NORML NEG	NEG	NEG
		scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	0	0
	Boron	ppm	ASTM D5185m	250	3	2	6
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	0	12	0
	Molybdenum	ppm	ASTM D5185m	100	4	5	6
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	450	49	56	84
	Calcium	ppm	ASTM D5185m		2320	2342	2229
	Phosphorus	ppm	ASTM D5185m	1150	893	929	916
	Zinc	ppm	ASTM D5185m	1350	1073	1070	1112
	Sulfur	ppm	ASTM D5185m		3727	3918	3982
	Oxidation	Abs/.1mm	*ASTM D7414	>25	10.0	10.5	10.5
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Base Number (BN) mg KOH/g ASTM D2896 8.5

ASTM D445 14.4

Visc @ 100°C cSt

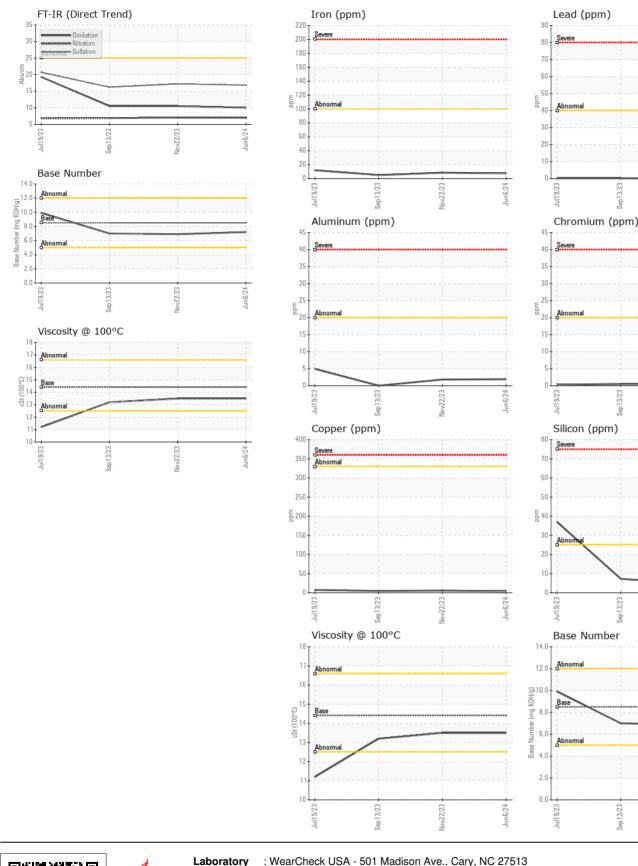
6.9 7.0

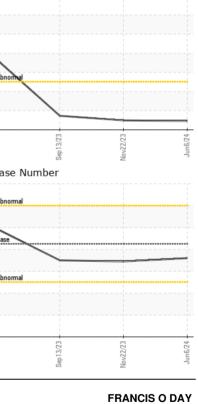
13.2

13.5

7.2

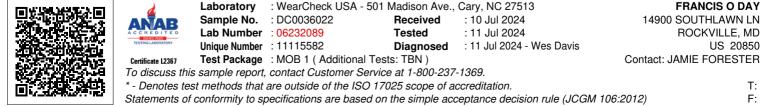
13.5





Vov22/23

Vov22/23



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

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