

## Machine Id 8575304 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
RECOMIMENDATION	Sample Number	UOIVI	Client Info	LIIIII/ADII	RPL0017014		
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Date		Client Info		14 Jun 2024		
	Machine Age	mls	Client Info		34786		
	Oil Age	mls	Client Info		14000		
	Filter Age	mls	Client Info		14000		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				NORMAL		
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WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m	>100	9		
	Chromium	ppm	ASTM D5185m	>20	<1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		<1		
	Aluminum	ppm	ASTM D5185m		4		
	Lead	ppm	ASTM D5185m		1		
	Copper	ppm	ASTM D5185m		5		
	Tin	ppm	ASTM D5185m	>15	<1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal Yellow Metal	scalar	*Visual	NONE NONE	NONE		
		scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	12		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	6		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.2		
	Nitration	Abs/cm	*ASTM D7624	>20	8.1		
	Sulfation	Abs/.1mm	*ASTM D7415		21.5		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	2		
	Boron	ppm	ASTM D5185m	250	60		
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		
	Molybdenum	ppm	ASTM D5185m	100	68		
	Manganese	ppm	ASTM D5185m		1		
	Magnesium	ppm	ASTM D5185m	450	641		
	Calcium	ppm	ASTM D5185m		1565		
	Phosphorus	ppm	ASTM D5185m		614		
	Zinc	ppm	ASTM D5185m		931		
	Sulfur	ppm	ASTM D5185m	4250	3277		

Oxidation

Visc @ 100°C cSt

Abs/.1mm \*ASTM D7414 >25

ASTM D445 14.4

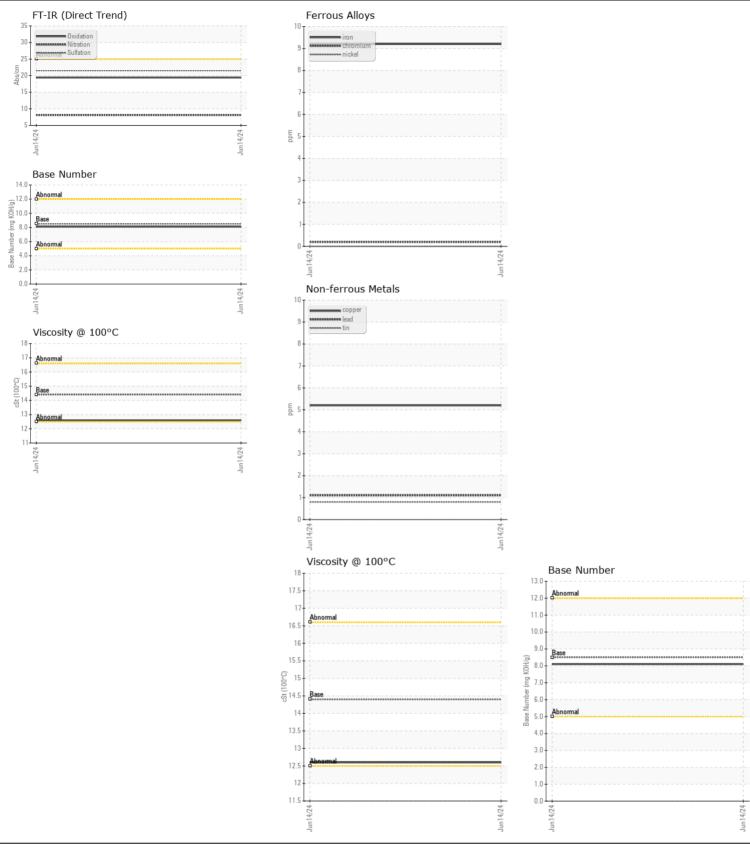
Base Number (BN) mg KOH/g ASTM D2896 8.5

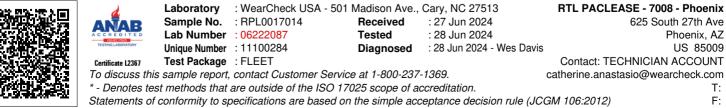
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19.4

8.1

12.6





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