

## Machine Id **142212** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		IL06151609	IL06068912	IL05951246
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		03 Apr 2024	04 Jan 2024	23 Aug 2023
component make and model with your next sample. Please specify the	Machine Age	hrs	Client Info		1007	610	3000
brand, type, and viscosity of the oil on your next sample.	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status		0.10111110		NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	41	36	13
	Chromium	ppm	ASTM D5185m	>20	2	2	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	0	0
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	10	7	8
	Lead	ppm	ASTM D5185m	>40	0	0	0
	Copper	ppm	ASTM D5185m	>330	10	39	10
	Tin	ppm	ASTM D5185m	>15	0	0	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m		10	11	19
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		7	3	2
	Fuel		WC Method		<1.0	<1.0	0.8
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.7	0.4	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	11.2	10.1	6.6
	Sulfation	Abs/.1mm	*ASTM D7415		21.8	21.4	19.6
	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	>158	3	2	3
	Boron	ppm	ASTM D5185m		4	5	22
The BN result indicates that there is suitable alkalinity remaining in the	Barium	ppm	ASTM D5185m		<1	<1	2
oil. The condition of the oil is suitable for further service.	Molybdenum	ppm	ASTM D5185m		64	67	54
	Manganese	ppm	ASTM D5185m		<1	1	2
	Magnesium	ppm	ASTM D5185m	450	936	1016	932
	Calcium	ppm	ASTM D5185m		1122	1142	1170
	Phosphorus	ppm	ASTM D5185m		982	1040	928
	Zinc	ppm	ASTM D5185m		1173	1327	1150
	-	1.15					

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m 4250

ASTM D445 14.4

Abs/.1mm \*ASTM D7414 >25

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

2917

18.6

7.2

12.2

3517

15.6

9.6

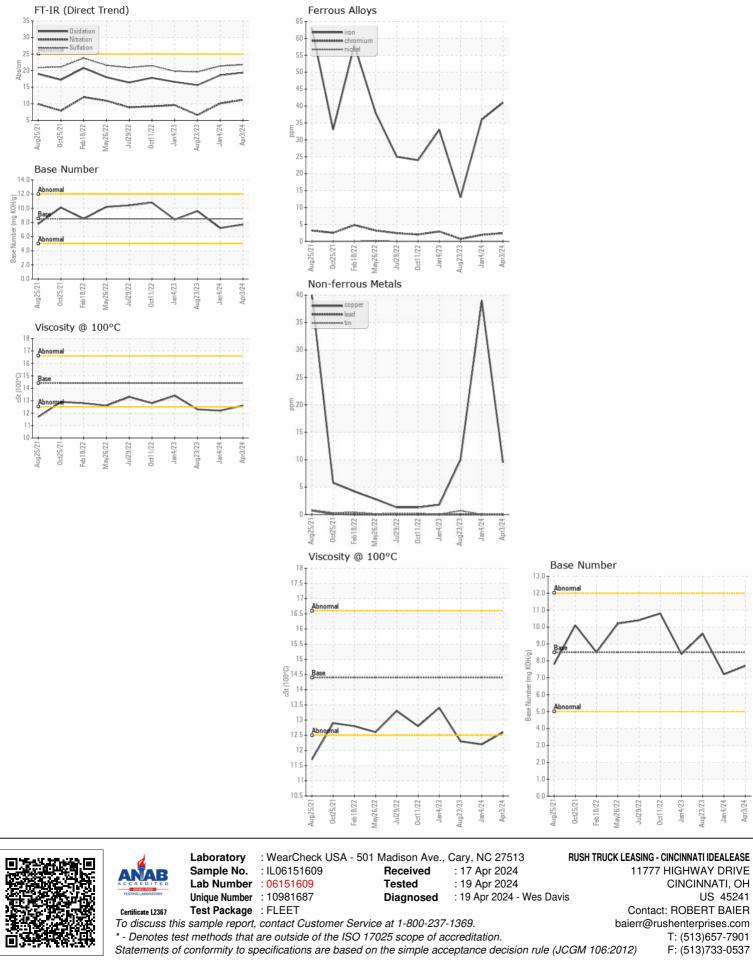
12.3

3156

19.4

7.7

12.6



Contact/Location: ROBERT BAIER - IDECIN Page 2 of 2