

## Machine Id **162112** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (--- QTS)**

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. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number	0.0111	Client Info		IL06151600	IL06055285	IL05607660
	Sample Date		Client Info		06 Mar 2024	05 Dec 2023	30 Jun 2022
	Machine Age	hrs	Client Info		6415	6086	3213
	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				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	11	16	23
	Chromium	ppm	ASTM D5185m	>20	<1	2	2
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	<1	<1
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	<1
	Aluminum	ppm	ASTM D5185m	>20	3	3	7
	Lead	ppm	ASTM D5185m	>40	0	1	<1
	Copper	ppm	ASTM D5185m	>330	<1	2	5
	Tin	ppm	ASTM D5185m	>15	0	<1	<1
	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		ASTM D5185m	. 25	5	7	6
CONTAMINATION	Potassium	ppm	ASTM D5185m		5	13	19
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	20.L	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.7	0.8	1.4
	Nitration	Abs/cm		>20	8.9	9.7	11.8
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	22.7	25.7
	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	>216	2	0	1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m	250	<1	6	5
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	100	59	63	59
	Manganese	ppm	ASTM D5185m	150	<1	1	<1
	Magnesium	ppm	ASTM D5185m		897	934	914
	Calcium	ppm	ASTM D5185m		1063	1155	1234
	Phosphorus	ppm	ASTM D5185m		928	852	919
	Zinc	ppm	ASTM D5185m		1125	1202	1217

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

3361

17.5

6.8

13.7

3548

8.0

19.2

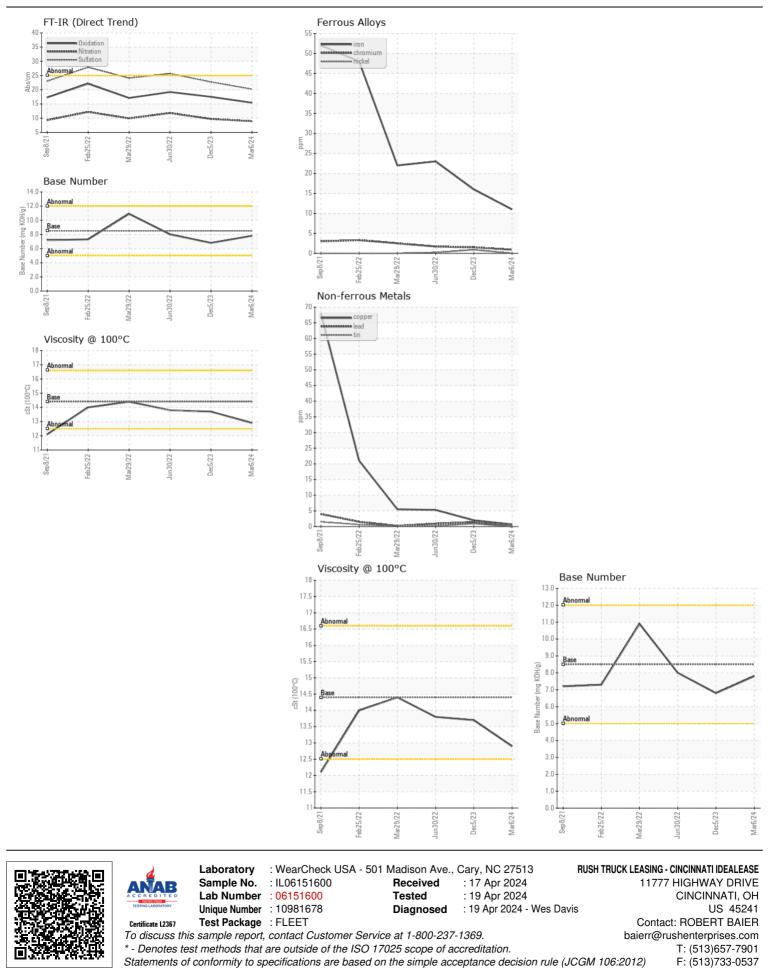
13.8

3320

15.4

7.8

12.9



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