

OIL ANALYSIS REPORT

Sample Rating Trend





Diesel Engine

Fluid DIESEL ENGINE OIL SAE 5W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0876670	WC0686136	WC0538260
Sample Date		Client Info		10 Jan 2024	17 Apr 2022	26 May 2021
Machine Age	mls	Client Info		424836	259963	160100
Oil Age	mls	Client Info		50000	100000	100000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	27	57	54
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm		>4	0	1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	3	12	15
Lead	ppm	ASTM D5185m	>40	<1	2	2
Copper	ppm	ASTM D5185m	>330	4	8	9
Tin	ppm	ASTM D5185m	>15	<1	2	2
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	16	17	21
Barium	ppm	ASTM D5185m	10	0	0	<1
Molybdenum	ppm	ASTM D5185m	100	62	80	76
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	1043	1203	1134
Calcium	ppm	ASTM D5185m	3000	998	1222	990
Phosphorus	ppm	ASTM D5185m	1150	1044	1140	1075
Zinc	ppm	ASTM D5185m	1350	1285	1406	1328
Sulfur	ppm	ASTM D5185m	4250	2938	2914	2706
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	8	7
Sodium	ppm	ASTM D5185m		4	5	4
Potassium	ppm	ASTM D5185m	>20	3	24	41
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.3	1.1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	12.2	14.8	13
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.1	30.3	27
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.5	32.0	28.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.0	4.3	3.8
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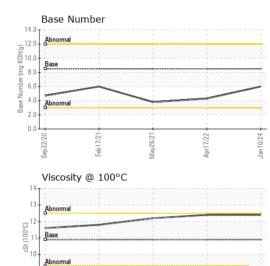
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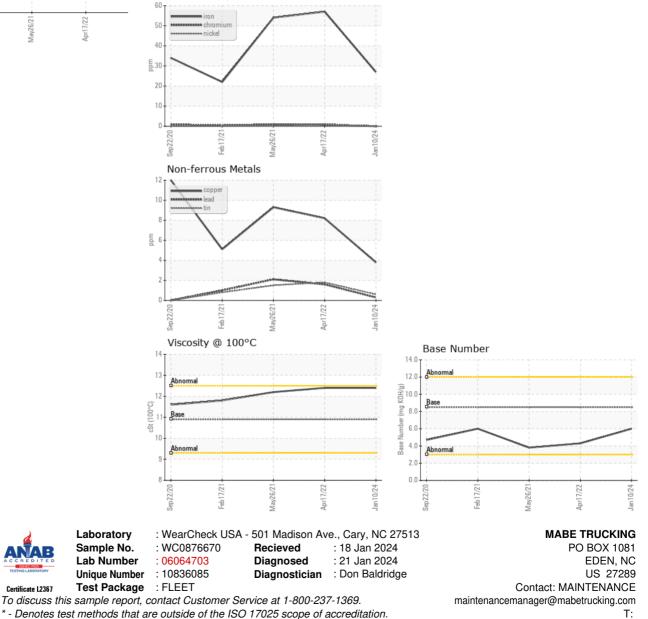
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	12.4	12.4	12.2
GRAPHS						
Ferrous Alloys						



* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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