

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 6110613

Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

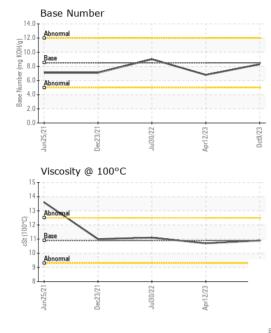
Fluid Condition

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

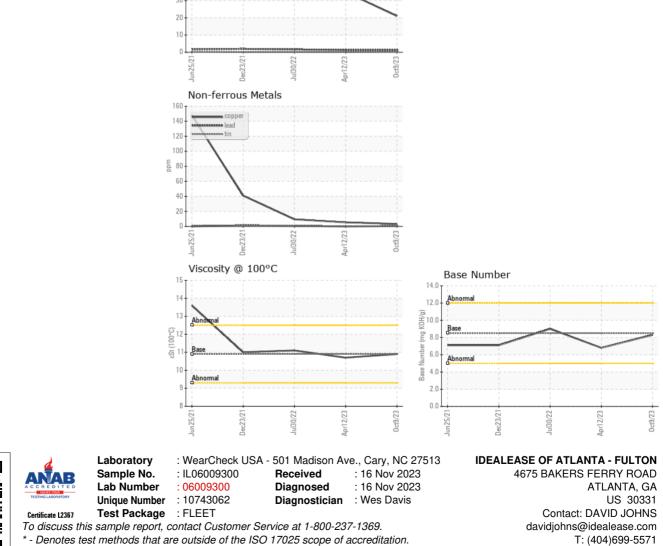
		Jun2021	Dec2021	Jul2022 Apr2023	Oct2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL06009300	IL05828769	IL05682689
Sample Date		Client Info		09 Oct 2023	12 Apr 2023	30 Jul 2022
Machine Age	mls	Client Info		121422	91128	75225
Oil Age	mls	Client Info		20000	15000	20000
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	21	35	32
Chromium	ppm	ASTM D5185m	>20	1	1	2
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	19	21	37
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	3	5	9
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				
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	20	23	25
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	40	45	38
Manganese	ppm	ASTM D5185m		<1	1	2
Magnesium	ppm	ASTM D5185m	450	472	483	561
Calcium	ppm	ASTM D5185m	3000	1565	1484	1635
Phosphorus	ppm	ASTM D5185m	1150	695	645	666
Zinc	ppm	ASTM D5185m	1350	871	867	920
Sulfur	ppm	ASTM D5185m	4250	2298	2305	2508
CONTAMINANTS	\$	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9	11	11
Sodium	ppm	ASTM D5185m		4	3	3
Potassium	ppm	ASTM D5185m	>20	38	42	80
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	11.8	11.7	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	21.6	25.5
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
- · · · ·	Al / d	*****	05		00.0	
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.8	22.9	25.5



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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 PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	10.9	10.7	11.1
GRAPHS						
Ferrous Alloys						
0 iron						
0 - chromium						
0						
0						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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