

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

FSP133179

Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- QTS)

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

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	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0875928	WC0717478	WC0612116
Sample Date		Client Info		10 Jun 2024	11 Jul 2022	19 Oct 2021
Machine Age	mls	Client Info		334146	317769	303763
Oil Age	mls	Client Info		20000	0	0
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	8	9	42
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	4	4	17
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	3	2	9
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	266	13	15
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	78	51	11
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	489	829	81
Calcium	ppm	ASTM D5185m	3000	1335	1164	2470
Phosphorus	ppm	ASTM D5185m	1150	975	889	836
Zinc	ppm	ASTM D5185m	1350	1077	1144	1023
Sulfur	ppm	ASTM D5185m	4250	3257	3367	4446
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	4	5
Sodium	ppm	ASTM D5185m	>158	1	<1	2
Potassium	ppm	ASTM D5185m	>20	2	<1	8
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.8
Nitration	Abs/cm	*ASTM D7624	>20	6.1	7.5	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	21.4	22.8
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	16.4	14
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.2	10.7	6.1
1:49:09) Rev: 1	Contact/Location: CRAIG EVANS - FREORL					



2.0

0.0

18

17

16 cSt (100°C)

11

Apr25/19

Ba

Abnorma

Sep12/19

nr75/19

OIL ANALYSIS REPORT



Dec3/19 .

Dec3/19 .

Sep12/19

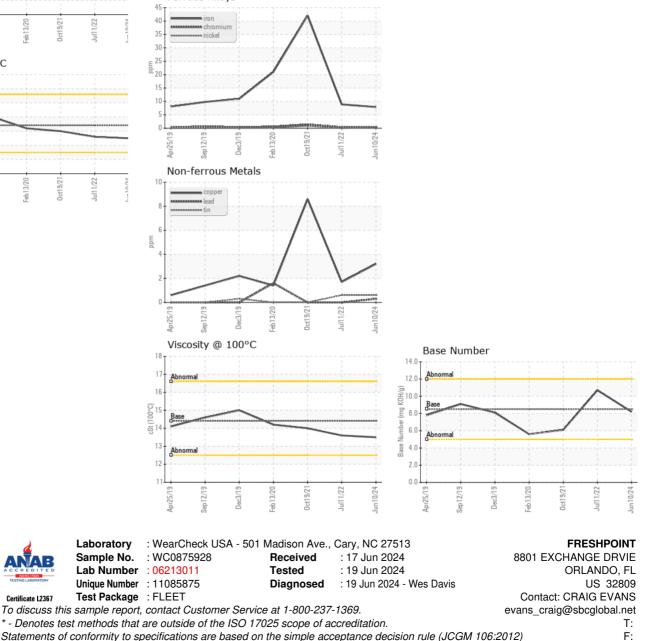
Viscosity @ 100°C

Feb 13/20

Feb13/20 -

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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	13.6	14.0
GRAPHS						

Ferrous Alloys



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