

OIL ANALYSIS REPORT

Sample Rating Trend





Area (F985HW) 428087

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (9 GAL)

Sample Number Client Info GFL0098922 GFL0098930 GFL009803 GFL009803 Sample Date Client Info 10719 10560 10405 Di Age hrs Client Info 10719 10560 10426 Di Age hrs Client Info 10506 10280 10280 Di Changed Client Info N/A N/A N/A Sample Status method limit/base current history1 history2 Supol WC Method >6.0 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Wear MC Method >0.2 <1 <1 0 Vickel ppm ASTM 05185m >20 <1 0 0 Vickel ppm ASTM 05185m >20 <1 0 0 Silver ppm ASTM 05185m >20 <1 0 0 Silver ppm ASTM 05185m	AE 15W40 (9 G/	AL)	in2022 Jun2	022 Jan2023 Mar2023	Jul2023 Sep2023 Dec2023	Feb2024	
Sample Date Client Info 28 May 2024 02 May 2024 13 Feb 2024 Vachine Age hrs Client Info 10719 10560 10460 Dil Age hrs Client Info 10506 10260 10260 Dil Changed Client Info N/A N/A N/A Sample Status Client Info N/A N/A N/A CONTAMINATION method Innit/base current history1 history1 Fuel WC Method >6.0 <1.0 <1.0 <1.0 Wear WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 ron pp ASTM 05185m >20 <1 0 0 Vickel ppm ASTM 05185m >2 <1 0 0 Silver ppm ASTM 05185m >2 <1 0 0 Silver ppm ASTM 05185m <t< th=""><th>SAMPLE INFOR</th><th>MATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 28 May 2024 02 May 2024 13 Feb 2024 Machine Age hrs Client Info 10719 10560 10405 Dil Age hrs Client Info 10506 10260 10260 Dil Changed Client Info N/A N/A N/A N/A Sample Status Imit/base current history1 history2 Fuel WC Method >6.0 <1.0	Sample Number		Client Info		GFL0098922	GFL0098903	GFL0099031
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WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >100 24 17 3 Dromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG	NEG	NEG
ron ppm ASTM D5185m >100 24 17 3 Chromium ppm ASTM D5185m >20 <1	Glycol		WC Method		NEG	NEG	NEG
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Sodium ppm ASTM D5185m >158 0 <1 <1 Potassium ppm ASTM D5185m >20 8 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 7.2 6.3 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.6 17.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	CONTAMINAN	ITS	method	limit/base	current	history1	history2
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INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 7.2 6.3 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.6 17.2 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	Sodium	ppm	ASTM D5185m	>158	0	<1	<1
Soot % % *ASTM D7844 >3 0.3 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 7.2 6.3 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.6 17.2 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	Potassium	ppm	ASTM D5185m	>20	8	3	0
Nitration Abs/cm *ASTM D7624 >20 7.2 6.3 5.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.6 17.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.6 17.2 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	Soot %	%	*ASTM D7844	>3	0.3	0.2	0.1
FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	Nitration	Abs/cm	*ASTM D7624	>20	7.2	6.3	5.3
Dxidation Abs/.1mm *ASTM D7414 >25 13.8 13.1 12.6	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	17.6	17.2
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0 8.0 8.5	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	13.1	12.6
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.0	8.0	8.5

DIAGNOSIS Recommendation

Resample at the next service interval to monitor. 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.

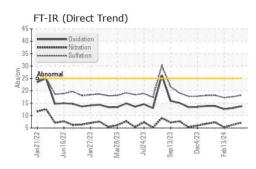
Fluid Condition

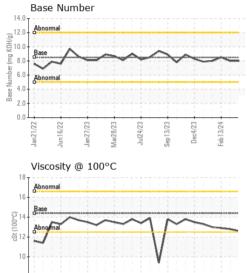
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Submitted By: GFL084,GFL842,GFL844,GFL846 - ROBERT THIBAULT Page 1 of 2



OIL ANALYSIS REPORT





Dec4/23 -

Sen 13/23

Feb13/24 -

Jun16/22

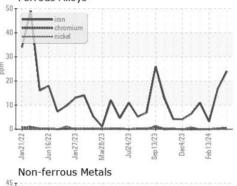
50/70m

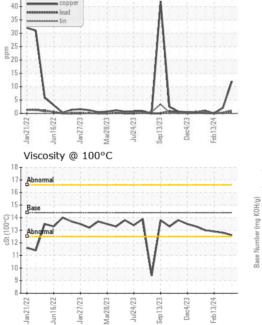
Mar28/23

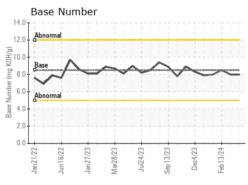
Jan21/22

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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	12.8	12.9
GRAPHS						

Ferrous Alloys







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 084 - Clarksville Sample No. : GFL0098922 Received : 06 Jun 2024 699 Jack Miller Boulevard Ř Lab Number : 06202228 Tested : 10 Jun 2024 Clarksville, TN Unique Number : 11069689 Diagnosed : 10 Jun 2024 - Wes Davis US 37042 Test Package : FLEET Contact: ROBERT THIBAULT Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. robert.thibault@gflenv.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (931)552-7276 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (931)572-9674

Report Id: GFL084 [WUSCAR] 06202228 (Generated: 06/10/2024 16:51:07) Rev: 1

Submitted By: GFL084, GFL842, GFL844, GFL846 - ROBERT THIBAULT

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