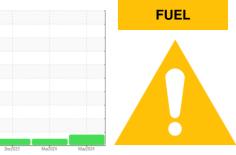


OIL ANALYSIS REPORT

Sample Rating Trend

SAMPLE INFORMATION method limit/base



history1

current

history2

Machine Id

352198 Component Gasoline Engine

Fluid {not provided} (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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

Light fuel dilution occurring.

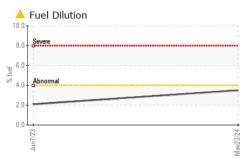
Fluid Condition

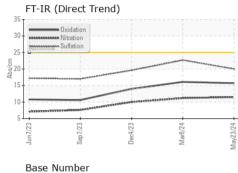
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

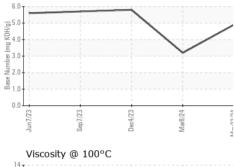
SAMPLE INFURI	MATION	method	limit/base	current	nistory i	nistory2
Sample Number		Client Info		GFL0086989	GFL0086910	GFL0086960
Sample Date		Client Info		23 May 2024	08 Mar 2024	04 Dec 2023
Machine Age	mls	Client Info		35165	25000	17000
Oil Age	mls	Client Info		4165	600	4000
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				MARGINAL	NORMAL	NORMAL
CONTAMINATI		method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	11	14	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>40	3	3	3
Lead	ppm	ASTM D5185m	>50	<1	0	0
Copper	ppm	ASTM D5185m	>155	<1	2	1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		<1	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		28	40	40
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		209	71	212
Manganese	ppm	ASTM D5185m		2	0	3
Magnesium	ppm	ASTM D5185m		394	522	486
Calcium	ppm	ASTM D5185m		1104	1177	1186
Phosphorus	ppm	ASTM D5185m		556	676	648
Zinc	ppm	ASTM D5185m		636	771	798
Sulfur	ppm	ASTM D5185m		1901	3305	2046
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	14	13	17
Sodium	ppm	ASTM D5185m		3	4	2
Potassium	ppm	ASTM D5185m	>20	1	<1	0
Fuel	%	ASTM D3524	>4.0	3 .5	<1.0	<1.0
INFRA-RED		method	limit/base	current	history1	history2
	%	*ASTM D7844		0	0.1	0
Soot %						
		*ASTM D7624	>20	11 5	11.2	10.0
Nitration	Abs/cm	*ASTM D7624 *ASTM D7415		11.5 20.0	11.2 22.7	10.0 19.6
Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7415	>30	20.0	22.7	19.6
Nitration Sulfation FLUID DEGRAD	Abs/cm Abs/.1mm DATION	*ASTM D7415 method	>30 limit/base	20.0 current	22.7 history1	19.6 history2
Soot % Nitration Sulfation FLUID DEGRAD Oxidation Base Number (BN)	Abs/cm Abs/.1mm	*ASTM D7415	>30 limit/base	20.0	22.7	19.6

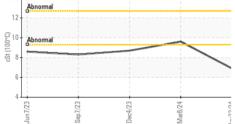


OIL ANALYSIS REPORT









White Met	L		method	limit/base	current	history1	histo
	al	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Me		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	ce	scalar	*Visual	NORML	NORML	NORML	NORN
Odor Emulsified	Matar	scalar scalar	*Visual *Visual	NORML >0.2	NORML NEG	NORML NEG	NORN NEG
Free Wate		scalar	*Visual	>0.2	NEG	NEG	NEG
				Proc D. Anno 1			
	PROPER		method	limit/base	current	history1	histo
Visc @ 10		cSt	ASTM D445		6.9	9.6	8.7
GRAP							
Ferrous	Alloys						
in in	ron		\wedge				
12 - managanana c	hromium						
10 -	ickel	1					
10		1					
8							
	and a state						
6							
4							
2							
0							
0		23.	24 -	24.			
Jun7/23	Sep 7/23	Dec4/23	Mar8/24	23/1			
η	Se	De	Ma	May23/24			
No. fr	Note Matala			_			
	rous Metals	i					
¹⁰ T							
	opper						
BARRARARARARA							
8 - ti	n						
8 - million til	n						
6	<u>n</u>						
6	n						
6 G							
6							
6 4							
6 G							
6 4		_	\sim				
		/23					
		bc4/23					
	Sep1/23	Dec4/23	Mar824	Ma/23/24			
Viscosity		Dec4/23		May23/24 -	Base Number		
Viscosity	Sep1/23	Dec4/23			Base Number		
Viscosity	Sep1/23	Deci/23		+7/22/eW 6.0-	Base Number	-	
Viscosity Abnormal	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
Viscosity	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number	-	
Viscosity	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
0 6 4 2 0 EZ/[¹⁰] Viscosity 14 13 Abnomal 12 11	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
0 6 4 2 0 EZ/[¹⁰] Viscosity 14 13 Abnomal 12 11	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
Viscosity Abnomal	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
Viscosity	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
Viscosity Abnormal Abnormal Abnormal	Sep1/23	Dec4/23		6.0 5.0 (b)HOX bull 3.0 8888 2.0	Base Number		
Viscosity	Sep1/23	Dec4/23		+7/22/eW 6.0-	Base Number		
Viscosity 4 4 4 2 0 E2 5 Viscosity 4 4 4 2 0 E2 5 4 4 2 0 E2 E2 E2 E2 E2 E2 E2 E2 E2 E2	czi/ues / @ 100°C		Mar824	6.0 5.0 (0)HOX Bul) agumN sseeg 1.0			
Viscosity Abnormal Abnormal Abnormal	Sep1/23	Dec4/23		6.0 5.0 (b)HOX bull 3.0 8888 2.0	Base Number	Dect/23	Mar8/24

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 408 - Brown City Sample No. : GFL0086989 Received 4235 M-53 : 29 May 2024 Lab Number : 06194779 Tested : 03 Jun 2024 BROWN CITY, MI US 48416 Unique Number : 11056902 Diagnosed : 03 Jun 2024 - Jonathan Hester Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: WILLIAM DEOLA Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. bdeola@gflenv.com T: (810)238-2836 * - 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) F:

Report Id: GFL408 [WUSCAR] 06194779 (Generated: 06/04/2024 07:35:10) Rev: 1

Submitted By: WILLIAM DEOLA

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