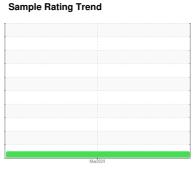


OIL ANALYSIS REPORT

San



NORMAL



Machine Id 834012 Component

Natural Gas Engine

{not provided} (--- 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

Metal levels are typical for a components first oil change.

Contamination

There is no indication of any contamination in the

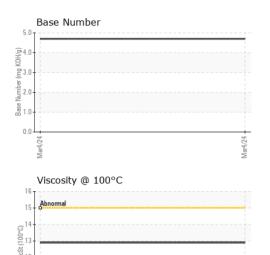
Fluid Condition

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

SAMPLE INFORMATION method limit/base current history1 history2							
Sample Number Client Info GFL0111840			L		Mar2024		
Sample Date Client Info 364	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 364	Sample Number		Client Info		GFL0111840		
Oil Age	Sample Date		Client Info		04 Mar 2024		
Contamped Client Info Not Change Contamped Client Info NoRMAL Contamped Co	Machine Age	hrs	Client Info		364		
CONTAMINATION	Oil Age	hrs	Client Info		364		
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 50 Chromium ppm ASTM D5185m >4 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >30 <1 Copper ppm ASTM D5185m >30 <1 Copper ppm ASTM D5185m >4 <1 Capper ppm ASTM D5185m 0 Capper ppm ASTM D5185m 0 <	Oil Changed		Client Info		Not Changd		
Water WC Method >0.1 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 50 Chromium ppm ASTM D5185m >4 0 Nickel ppm ASTM D5185m >2 <1	Sample Status				NORMAL		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 50 Chromium ppm ASTM D5185m >4 0 Nickel ppm ASTM D5185m >2 <1 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >9 1 Lead ppm ASTM D5185m 0 Codepter ppm ASTM D5185m 0	CONTAMINAT	ION	method	limit/base	current	history1	history2
Common	Water		WC Method	>0.1	NEG		
Chromium ppm ASTM D5185m >4 0 Nickel ppm ASTM D5185m >2 <1 Silver ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Lead ppm ASTM D5185m >9 1 Lead ppm ASTM D5185m >30 <1 Lead ppm ASTM D5185m >30 <1 Copper ppm ASTM D5185m >35 13 Vanadium ppm ASTM D5185m >4 <1 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 16 Magnesium ppm ASTM D5185m 48 Magnesium ppm ASTM D5185m 16 Magnesium ppm ASTM D5185m 1125 CONTAMINANTS method limit/base current history1 history2 Sodium ppm ASTM D5185m 3 NFRA-RED method limit/base current history1 history2 Sulfation Abs/mm "ASTM D7444 0 FUID DEGRADATION method limit/base current history1 history2	WEAR METAL	.S	method	limit/base	current	history1	history2
ASTM D5185m SATM D5185m	ron	ppm	ASTM D5185m	>50	50		
Nickel ppm	Chromium		ASTM D5185m	>4	0		
Silver	Nickel		ASTM D5185m	>2	<1		
Aluminum	Titanium	ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m	>3	0		
Copper	Aluminum	ppm	ASTM D5185m	>9	1		
Trin	_ead	ppm	ASTM D5185m	>30	<1		
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 16 Barium ppm ASTM D5185m 48 Molybdenum ppm ASTM D5185m 16 Manganese ppm ASTM D5185m 765 Magnesium ppm ASTM D5185m 1125 Calcium ppm ASTM D5185m 15 Phosphorus ppm ASTM D5185m 852 Zinc ppm ASTM D5185m 1961 Sulfur ppm ASTM D5185m >+100 32 CONTAMINANTS method limit/base current	Copper	ppm	ASTM D5185m	>35	13		
ADDITIVES	Tin	ppm	ASTM D5185m	>4	<1		
ADDITIVES	Vanadium	ppm	ASTM D5185m		0		
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 48 Manganese ppm ASTM D5185m 16 Magnesium ppm ASTM D5185m 765 Calcium ppm ASTM D5185m 1125 Phosphorus ppm ASTM D5185m 852 Zinc ppm ASTM D5185m 1961 Sulfur ppm ASTM D5185m >+100 32 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 32 Sodium ppm ASTM D5185m >20 <1	Boron	ppm	ASTM D5185m		16		
Manganese ppm ASTM D5185m 16 Magnesium ppm ASTM D5185m 765 Calcium ppm ASTM D5185m 1125 Phosphorus ppm ASTM D5185m 665 Zinc ppm ASTM D5185m 1961 Sulfur ppm ASTM D5185m >+100 32 CONTAMINANTS method limit/base current history1 history2 Soliicon ppm ASTM D5185m >+100 32 Soliicon ppm ASTM D5185m >20 <1	Barium	ppm	ASTM D5185m		5		
Magnesium ppm ASTM D5185m 765 Calcium ppm ASTM D5185m 1125 Phosphorus ppm ASTM D5185m 665 Zinc ppm ASTM D5185m 1961 Sulfur ppm ASTM D5185m 1961 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 3 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1	Molybdenum	ppm	ASTM D5185m		48		
Calcium ppm ASTM D5185m 1125 Phosphorus ppm ASTM D5185m 665 Zinc ppm ASTM D5185m 852 Sulfur ppm ASTM D5185m 1961 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 32 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1	Manganese	ppm	ASTM D5185m		16		
Phosphorus ppm ASTM D5185m 665 Zinc ppm ASTM D5185m 852 Sulfur ppm ASTM D5185m 1961 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 32 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Sulfation Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2	Magnesium	ppm	ASTM D5185m		765		
Sulfur ppm ASTM D5185m 852 Sulfur ppm ASTM D5185m 1961 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 3 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	Calcium	ppm	ASTM D5185m		1125		
Sulfur ppm ASTM D5185m 1961 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 32 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1	Phosphorus	ppm	ASTM D5185m		665		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 32 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1	Zinc	ppm	ASTM D5185m		852		
Silicon ppm ASTM D5185m >+100 32 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	Sulfur	ppm	ASTM D5185m		1961		
Sodium	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	Silicon	ppm	ASTM D5185m	>+100	32		
INFRA-RED	Sodium	ppm	ASTM D5185m		3		
Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	Potassium	ppm	ASTM D5185m	>20	<1		
Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	Soot %	%	*ASTM D7844		0		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.5	Nitration	Abs/cm	*ASTM D7624	>20	11.2		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8		
	FLUID DEGRAI	OITAC	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 4.7	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.5		
	Base Number (BN)	mg KOH/g	ASTM D2896		4.7		



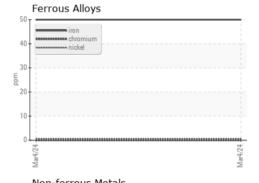
OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.1	NEG		
Free Water	scalar	*Visual		NEG		

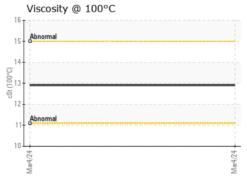
FLUID PROP	EHILO	method		riistory i	Historyz
Visc @ 100°C	cSt	ASTM D445	12.9		

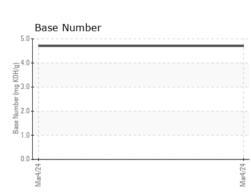
GRAPHS



12-	copper	 				

10						
8						
0						
6						
4 1						
2						
0		 	 	****	****	
Mar4/24						M-red 72.4
and						7







Certificate L2367

Laboratory Sample No.

Lab Number : 06109238 Unique Number : 10912735 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0111840 Received **Tested**

Diagnosed

: 05 Mar 2024 : 06 Mar 2024 : 06 Mar 2024 - Wes Davis

GFL Environmental - 652 - Fredericksburg Hauling 10954 Houser Drive

Fredericksburg, VA US 22408

Contact: WILLIAM MILO

wmilo@gflenv.com T:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

Report Id: GFL652 [WUSCAR] 06109238 (Generated: 03/06/2024 14:42:25) Rev: 1

Submitted By: TECHNICIAN ACCOUNT

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