WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

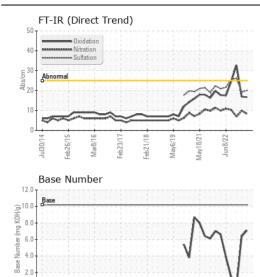
Area

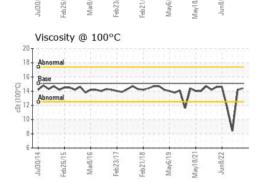
(YA117932)

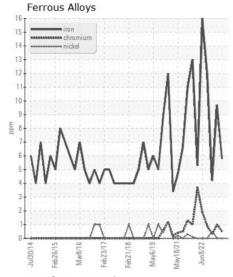
10422C

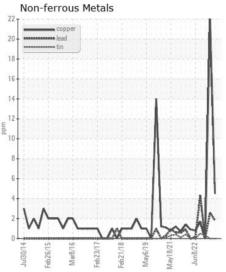
Natural Gas Engine

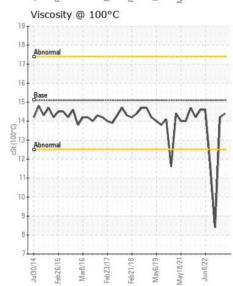
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		GFL0123414	GFL0082426	GFL008245
Resample at the next service interval to monitor.	Sample Date		Client Info		18 Jun 2024	11 Jun 2024	02 Jun 202
	Machine Age	hrs	Client Info		99290	99290	5193
	Oil Age	hrs	Client Info		99290	99290	366
	Filter Age	hrs	Client Info		99290	99290	366
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL		ABNORMA
WEAR	Iron	ppm	ASTM D5185m	>50	6	10	4
WEAR	Chromium	ppm	ASTM D5185m		<1	1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	<1
	Titanium	ppm	ASTM D5185m	72	<1	<1	0
	Silver	ppm	ASTM D5185m	<b>\3</b>	0	0	<1
	Aluminum	ppm	ASTM D5185m		1	2	2
	Lead	ppm	ASTM D5185m		2	3	0
	Copper	ppm	ASTM D5185m		4	<u>^</u> 22	0
	Tin	ppm	ASTM D5185m		0	0	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m		4	5	2
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		3	5	3
	Water		WC Method	>0.1	NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0	0	0
	Nitration	Abs/cm	*ASTM D7624		8.3	9.9	6.9
	Sulfation	Abs/.1mm	*ASTM D7415		20.0	19.3	26.2
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		14	129	3
	Boron	ppm	ASTM D5185m	50	26	12	20
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	5	0	0	0
	Molybdenum	ppm	ASTM D5185m	50	50	57	<b>1</b> 4
	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
	Magnesium	ppm	ASTM D5185m	560	590	621	145
	Calcium	ppm	ASTM D5185m		1707	1632	519
	Phosphorus	ppm	ASTM D5185m	780	849	850	376
	Zinc	ppm	ASTM D5185m		1032	1059	271
	Sulfur	ppm	ASTM D5185m	2040	3068	3043	1668
	Oxidation	Abs/.1mm	*ASTM D7414		16.7	16.9	<b>▲</b> 32.7
		1/011/			7.1	6.4	△ 0.2
	Base Number (BN)	mg KOH/g	ASTM D2896	10.2	7.1	0.4	0.2

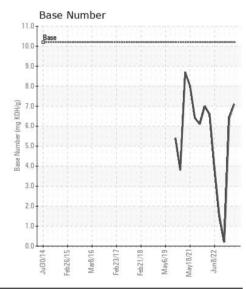














Certificate L2367

Report Id: GFL007 [WUSCAR] 06215577 (Generated: 06/21/2024 14:37:29) Rev: 1

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06215577

: GFL0123414

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

Received : 20 Jun 2024 **Tested** Diagnosed Unique Number : 11088441 Test Package : FLEET

: 21 Jun 2024 : 21 Jun 2024 - Wes Davis

GFL Environmental - 007 - Brunswick

2809 Galloway Road Bolivia, NC

US 28422 Contact: DONALD CRAVEN

dcraven@gflenv.com T:

\* - 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)

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