**WEAR** CONTAMINATION **FLUID CONDITION** 

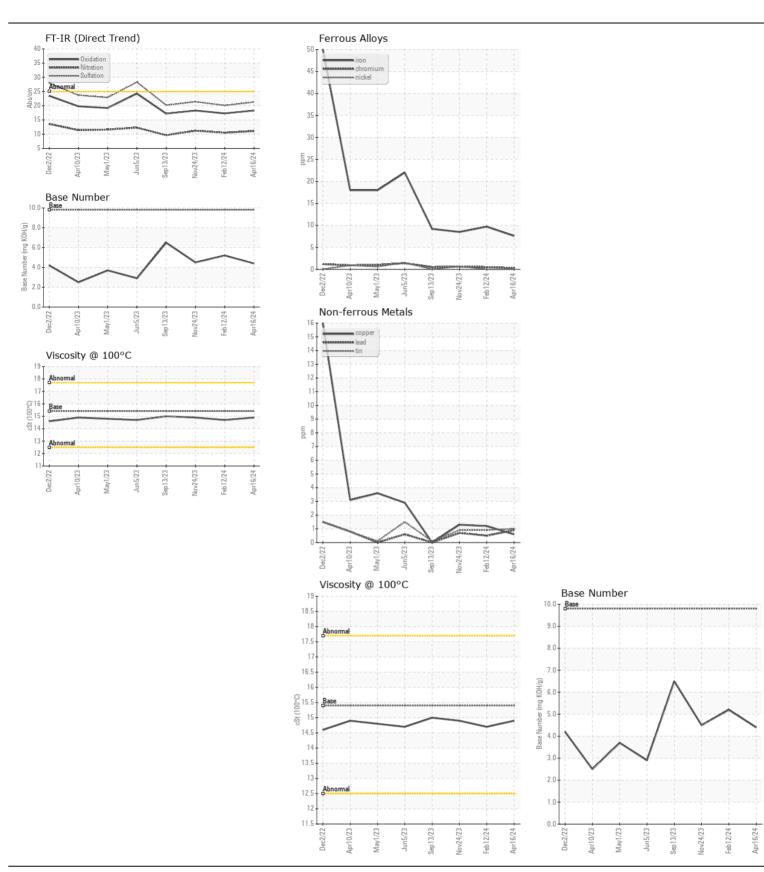
**NORMAL NORMAL NORMAL** 

Machine Id

833013

Natural Gas Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0106901	GFL0106847	GFL008463
	Sample Date		Client Info		16 Apr 2024	12 Feb 2024	24 Nov 202
	Machine Age	hrs	Client Info		5438	4853	4348
	Oil Age	hrs	Client Info		600	0	600
	Filter Age	hrs	Client Info		600	0	600
	Oil Changed		Client Info		Changed	N/A	Changed
	Filter Changed		Client Info		Changed	N/A	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
VEAR	Iron	ppm	ASTM D5185m	>50	8	10	8
	Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>2	0	0	<1
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>9	1	1	2
	Lead	ppm	ASTM D5185m	>30	<1	<1	<1
	Copper	ppm	ASTM D5185m	>35	<1	1	1
	Tin	ppm	ASTM D5185m	>4	1	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NON
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>+100	3	4	5
	Potassium	ppm	ASTM D5185m	>20	0	0	2
There is no indication of any contamination in the oil.	Water		WC Method	>0.1	NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0	0	0
	Nitration	Abs/cm	*ASTM D7624	>20	11.1	10.5	11.2
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	20.1	21.4
	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
LUID CONDITION	Sodium	ppm	ASTM D5185m		6	7	3
	Boron	ppm	ASTM D5185m	0	2	10	7
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	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	60	52	52	53
	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
	Magnesium	ppm	ASTM D5185m		539	547	551
	Calcium	ppm	ASTM D5185m		1745	1559	1626
	Phosphorus	ppm	ASTM D5185m		714	733	646
	Zinc	ppm	ASTM D5185m		949	950	961
	Sulfur	ppm	ASTM D5185m		2884	2496	2564
	Oxidation	Abs/.1mm	*ASTM D7414		18.3	17.3	18.3
		1/011/	ASTM D2896	0.0	4.4	5.2	4.5







Certificate L2367

Laboratory

Sample No.

: GFL0106901 Lab Number : 06154064 Unique Number: 10989487 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 19 Apr 2024 : 23 Apr 2024

**Tested** Diagnosed

: 23 Apr 2024 - Don Baldridge

GFL Environmental - 856 - Houston South

8515 Highway 6 South Houston, TX US 77083

Contact: Apolinar Zacarias pzacariascano@gflenv.com

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)

T: F: