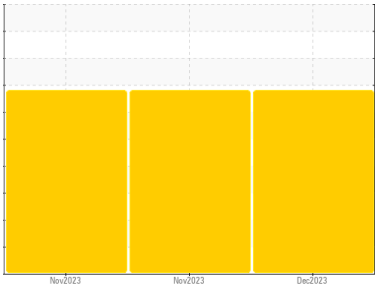
PROBLEM SUMMARY

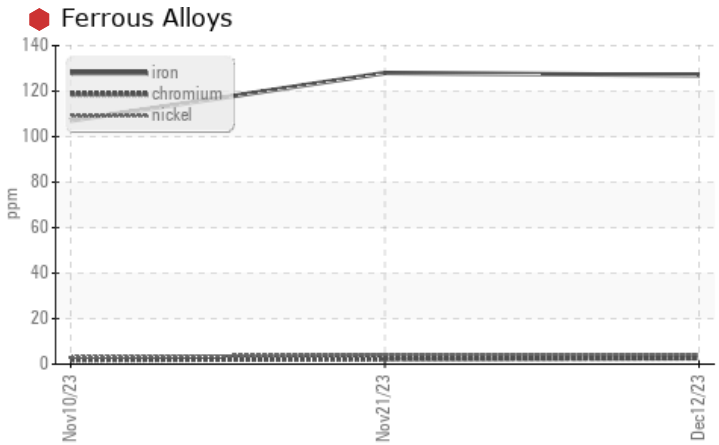
Machine Id
934025
Component
Natural Gas Engine
Fluid
NOT GIVEN (--- GAL)

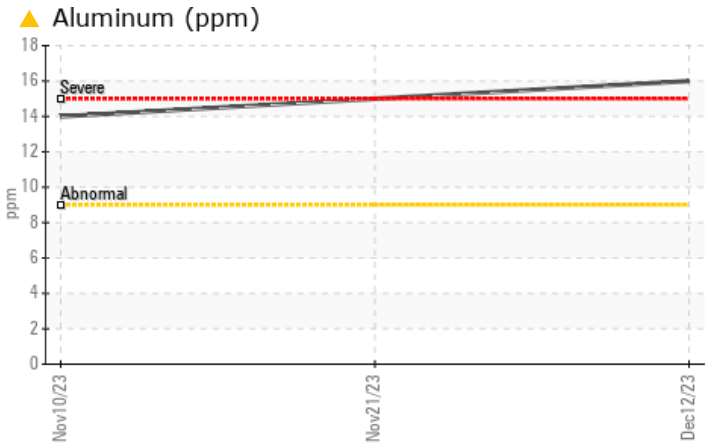
Sample Rating Trend



WEAR

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>50	**127**	128	107
Aluminum	ppm	ASTM D5185m	>9	**16**	15	14

Customer Id: GFL837
Sample No.: GFL0102509
Lab Number: 06039951
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

21 Nov 2023 Diag: Don Baldridge

WEAR

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Piston, ring and cylinder wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

10 Nov 2023 Diag: Jonathan Hester

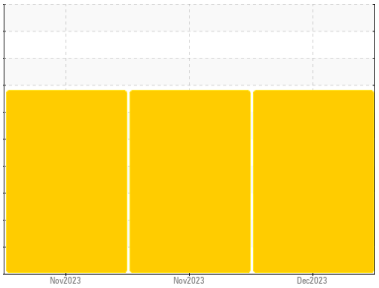
WEAR

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Piston, ring and cylinder wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
934025
Component
Natural Gas Engine
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
Piston, ring and cylinder wear is indicated.

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 oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0102509**	GFL0098638	GFL0098609
Sample Date		Client Info		**12 Dec 2023**	21 Nov 2023	10 Nov 2023
Machine Age	hrs	Client Info		**1414**	1268	1210
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**127**	128	107
Chromium	ppm	ASTM D5185m	>4	**3**	2	2
Nickel	ppm	ASTM D5185m	>2	**4**	4	3
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**<1**	<1	<1
Aluminum	ppm	ASTM D5185m	>9	**16**	15	14
Lead	ppm	ASTM D5185m	>30	**6**	4	3
Copper	ppm	ASTM D5185m	>35	**22**	23	20
Tin	ppm	ASTM D5185m	>4	**3**	3	3
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

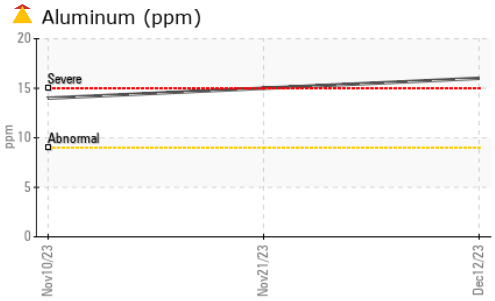
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**2**	5	3
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**80**	79	70
Manganese	ppm	ASTM D5185m		**18**	19	16
Magnesium	ppm	ASTM D5185m		**905**	906	871
Calcium	ppm	ASTM D5185m		**1389**	1440	1368
Phosphorus	ppm	ASTM D5185m		**750**	812	769
Zinc	ppm	ASTM D5185m		**1023**	1033	978
Sulfur	ppm	ASTM D5185m		**2355**	2563	2263

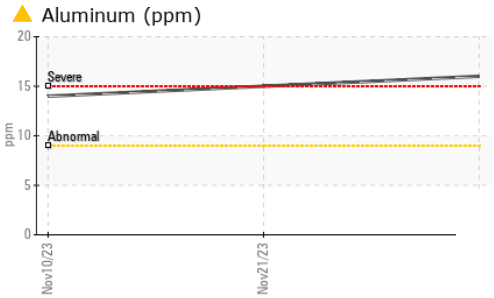
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**32**	35	31
Sodium	ppm	ASTM D5185m		**9**	4	7
Potassium	ppm	ASTM D5185m	>20	**12**	14	10

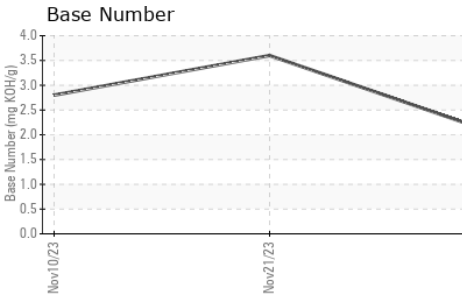
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**15.2**	14.7	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	**29.4**	28.1	27.9

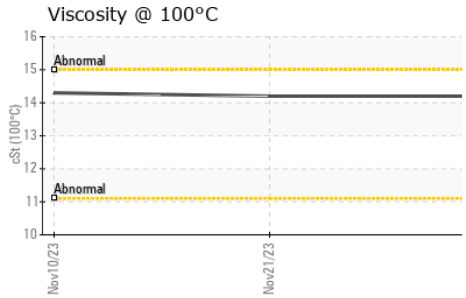
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**29.1**	27.0	26.6
Base Number (BN)	mg KOH/g	ASTM D2896		**2.1**	3.6	2.8

OIL ANALYSIS REPORT





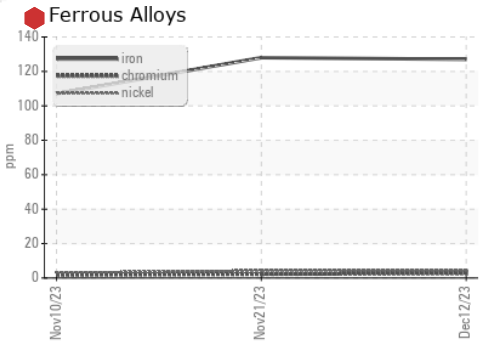


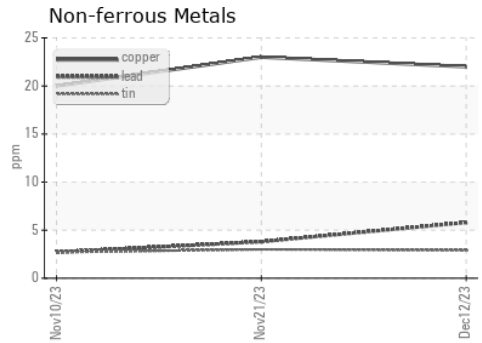


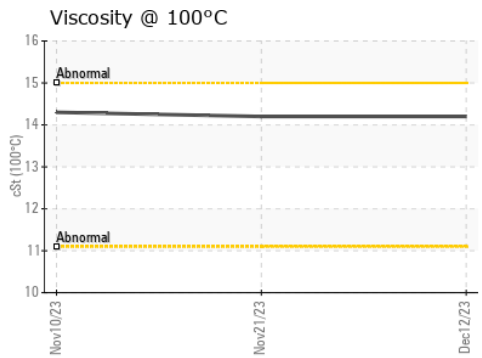
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

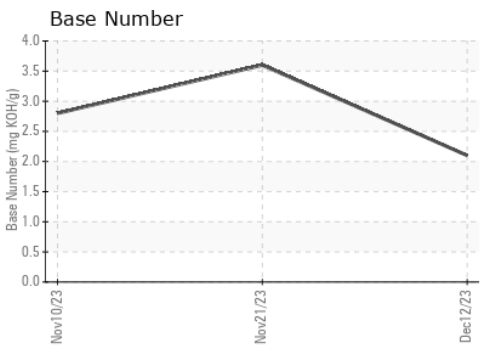
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		**14.2**	14.2	14.3

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102509
Lab Number : 06039951
Unique Number : 10795180
Test Package : FLEET

Recieved : 19 Dec 2023
Diagnosed : 21 Dec 2023
Diagnostician : Don Baldridge

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)

GFL Environmental - 837 - Harrison TS
22820 S State Route 291
Harrisonville, MO
US 64701
Contact: BRYAN SWANSON
bryanswanson@gflenv.com
T:
F:

Report Id: GFL837 [WUSCAR] 06039951 (Generated: 12/21/2023 18:11:15) Rev: 1

Contact/Location: BRYAN SWANSON - GFL837