

# **PROBLEM SUMMARY**

Sample Rating Trend

DIRT

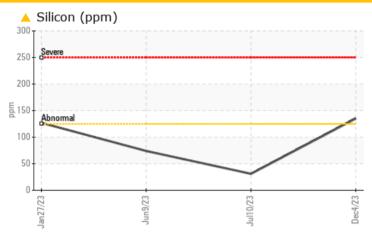
Machine Id 413058

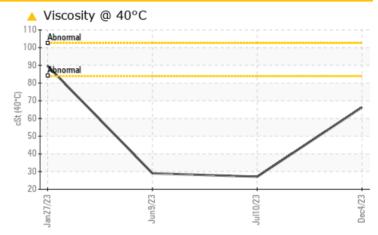
Component

**Transmission (Manual)** 

NOT GIVEN (--- GAL)

# **COMPONENT CONDITION SUMMARY**





# RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. ( Customer Sample Comment: Transmission )

# PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Silicon	ppm	ASTM D5185m	>125	<b>135</b>	31	74
Visc @ 40°C	cSt	ASTM D445		<b>△</b> 66.3	27.11	29.0

Customer Id: GFL983 Sample No.: GFL0094064 Lab Number: 06029811 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
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.
Information Required			?	Please specify the brand, type, and viscosity of the oil on your next sample.
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.

# HISTORICAL DIAGNOSIS

## 10 Jul 2023 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.



### 09 Jun 2023 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.



#### 27 Jan 2023 Diag: Don Baldridge

DIRT



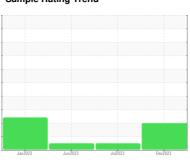
We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the fluid is acceptable for the time in service.





# **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id 413058

Component

**Transmission (Manual)** 

**NOT GIVEN (--- GAL)** 

## **DIAGNOSIS**

#### Recommendation

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. ( Customer Sample Comment: Transmission)

#### Wear

All component wear rates are normal.

## Contamination

Elemental level of silicon (Si) above normal.

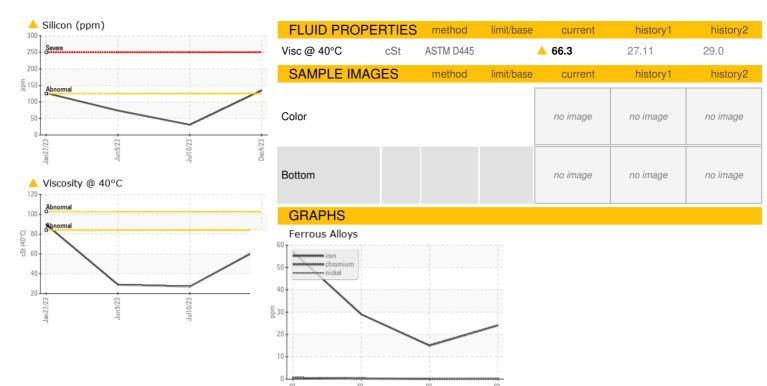
### ▲ Fluid Condition

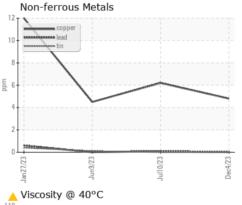
The fluid viscosity is higher than normal. The condition of the fluid is acceptable for the time in service.

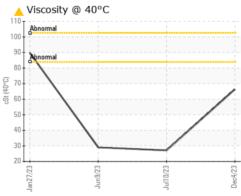
		Jan 202	3 Jun2023	Jul2023 De	c2023	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0094064	GFL0085472	GFL0085460
Sample Date		Client Info		04 Dec 2023	10 Jul 2023	09 Jun 2023
Machine Age	mls	Client Info		251267	53854	48976
Oil Age	mls	Client Info		261267	53854	38262
Oil Changed	0	Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	24	15	29
Chromium	ppm	ASTM D5185m	>5	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>7	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	5	13
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>225	5	6	4
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		136	43	142
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	1	<1
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		4	0	0
Calcium	ppm	ASTM D5185m		1391	270	180
Phosphorus	ppm	ASTM D5185m				
Zinc		AO IIVI DO IOOIII		1048	455	582
21110	ppm	ASTM D5185m		1048 535	455 10	582 3
Sulfur						
-	ppm ppm	ASTM D5185m ASTM D5185m method	limit/base	535	10	3
Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	limit/base >125	535 2157	10 1175	3 3018
Sulfur CONTAMINAN	ppm ppm	ASTM D5185m ASTM D5185m method		535 2157 current	10 1175 history1	3 3018 history2
Sulfur  CONTAMINAN  Silicon	ppm ppm TS	ASTM D5185m ASTM D5185m method ASTM D5185m		535 2157 current 135	10 1175 history1 31	3 3018 history2 74
Sulfur  CONTAMINAN  Silicon  Sodium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>125 >20 limit/base	535 2157  current  ▲ 135 3 <1  current	10 1175 history1 31 0 2 history1	3 3018 history2 74 3 0 history2
Sulfur  CONTAMINAN Silicon Sodium Potassium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>125 >20 limit/base NONE	535 2157	10 1175 history1 31 0 2 history1 NONE	3 3018 history2 74 3 0 history2 NONE
Sulfur  CONTAMINAN Silicon Sodium Potassium  VISUAL White Metal	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>125 >20 limit/base	535 2157	10 1175 history1 31 0 2 history1	3 3018 history2 74 3 0 history2
Sulfur  CONTAMINAN  Silicon  Sodium  Potassium  VISUAL  White Metal  Yellow Metal	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>125 >20 limit/base NONE	535 2157	10 1175 history1 31 0 2 history1 NONE	3 3018 history2 74 3 0 history2 NONE
Sulfur  CONTAMINAN Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate	ppm ppm TS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method  *Visual	>125 >20 limit/base NONE NONE	535 2157	10 1175 history1 31 0 2 history1 NONE	3 3018 history2 74 3 0 history2 NONE NONE
Sulfur  CONTAMINAN Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  *Visual  *Visual  *Visual	>125 >20 limit/base NONE NONE NONE	535 2157  current  ▲ 135 3 <1  current  NONE  NONE  NONE	10 1175 history1 31 0 2 history1 NONE NONE	3 3018 history2 74 3 0 history2 NONE NONE
Sulfur  CONTAMINAN Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm TS ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  wethod  *Visual  *Visual  *Visual  *Visual	>125 >20 limit/base NONE NONE NONE NONE	535 2157  current  135 3 <1  current  NONE  NONE  NONE  NONE  NONE	10 1175 history1 31 0 2 history1 NONE NONE NONE	3 3018 history2 74 3 0 history2 NONE NONE NONE NONE
Sulfur  CONTAMINAN Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>125 >20 limit/base NONE NONE NONE NONE NONE NONE	535 2157  current  135 3 <1  current  NONE  NONE  NONE  NONE  NONE  NONE  NONE  NONE	10 1175 history1 31 0 2 history1 NONE NONE NONE NONE NONE NONE	3 3018 history2 74 3 0 history2 NONE NONE NONE NONE NONE NONE
Sulfur  CONTAMINAN  Silicon Sodium Potassium  VISUAL  White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  *Visual  *Visual  *Visual  *Visual  *Visual  *Visual  *Visual  *Visual  *Visual	>125 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	535 2157  current  135 3 <1  current  NONE	10 1175 history1 31 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	3 3018 history2 74 3 0 history2 NONE NONE NONE NONE NONE NONE NONE NON
Sulfur  CONTAMINAN Silicon Sodium Potassium  VISUAL  White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  wethod  *Visual  *Visual	>125  >20  limit/base  NONE  NONE	535 2157  current  135 3 <1  current  NONE  NONE	10 1175 history1 31 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	3 3018 history2 74 3 0 history2 NONE NONE NONE NONE NONE NONE NONE NON



# **OIL ANALYSIS REPORT**









Certificate L2367

Laboratory Sample No. Lab Number

Test Package : FLEET

: GFL0094064 : 06029811 Unique Number : 10779602

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 08 Dec 2023 Diagnosed

: 12 Dec 2023 Diagnostician : Don Baldridge

GFL Environmental - 983 - Sugar Land Hauling 16011 West Belfort Street Sugar Land, TX

US 77498 Contact: Gino Griego ggriego@gflenv.com T: (720)999-0726

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)