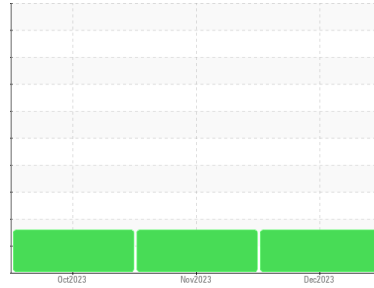




# PROBLEM SUMMARY

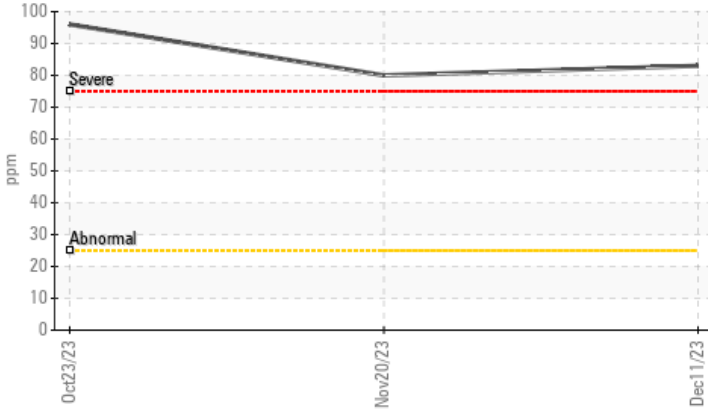
Sample Rating Trend



Machine Id  
**914059**  
 Component  
**Diesel Engine**  
 Fluid  
**NOT GIVEN (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Silicon (ppm)



## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185m	>25	▲ <b>83</b>	▲ 80	▲ 96

Customer Id: GFL816  
 Sample No.: GFL0086408  
 Lab Number: 06032653  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

## HISTORICAL DIAGNOSIS

### 20 Nov 2023 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. Metal levels are typical for a new component breaking in. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

view report



### 23 Oct 2023 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

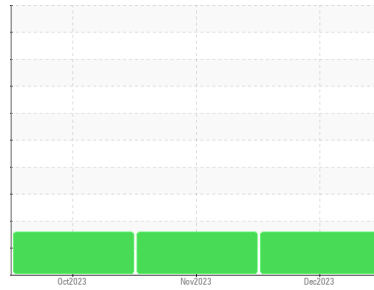
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id  
**914059**  
 Component  
**Diesel Engine**  
 Fluid  
**NOT GIVEN (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

### Fluid Condition

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

## SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	<b>GFL0086408</b>	GFL0086404	GFL0086390	
Sample Date	Client Info	<b>11 Dec 2023</b>	20 Nov 2023	23 Oct 2023	
Machine Age	hrs	Client Info	<b>467</b>	316	142
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2	
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>100	<b>39</b>	28	25
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>8</b>	5	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	5	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>213</b>	131	46
Tin	ppm	ASTM D5185m	>15	<b>3</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m		<b>248</b>	284	406
Barium	ppm	ASTM D5185m		<b>11</b>	0	4
Molybdenum	ppm	ASTM D5185m		<b>115</b>	107	126
Manganese	ppm	ASTM D5185m		<b>4</b>	3	3
Magnesium	ppm	ASTM D5185m		<b>603</b>	607	645
Calcium	ppm	ASTM D5185m		<b>1511</b>	1532	1394
Phosphorus	ppm	ASTM D5185m		<b>684</b>	680	715
Zinc	ppm	ASTM D5185m		<b>844</b>	865	809
Sulfur	ppm	ASTM D5185m		<b>2613</b>	2396	2903

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	<b>▲ 83</b>	▲ 80	▲ 96
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	4	5
Fuel	%	ASTM D3524	>5	<b>&lt;1.0</b>	<1.0	0.3

## INFRA-RED

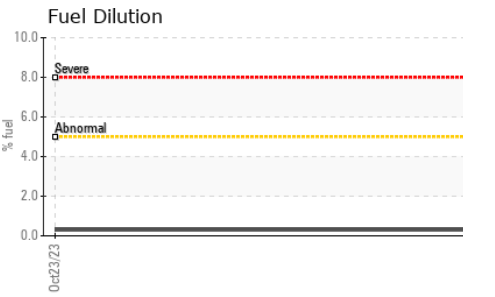
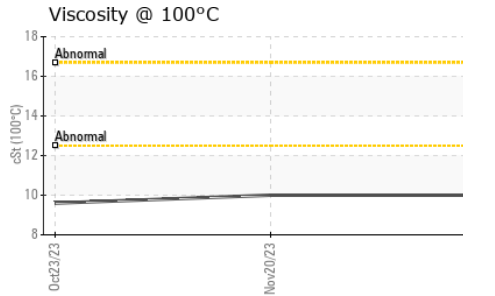
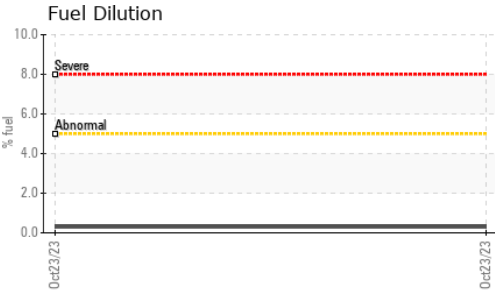
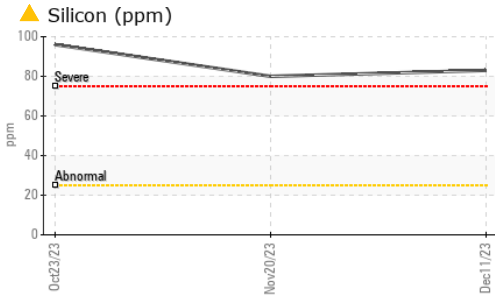
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.8</b>	8.6	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.8</b>	25.6	26.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.3</b>	21.7	20.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.6</b>	8.6	9.5



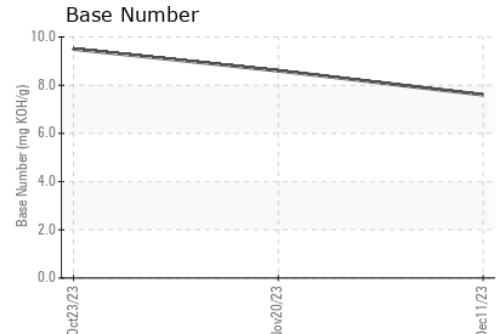
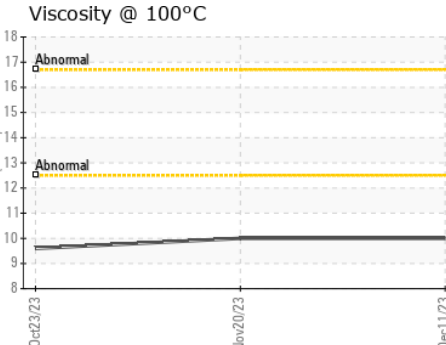
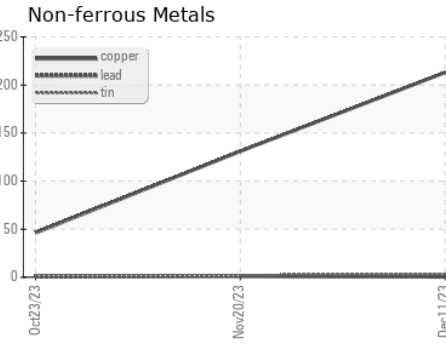
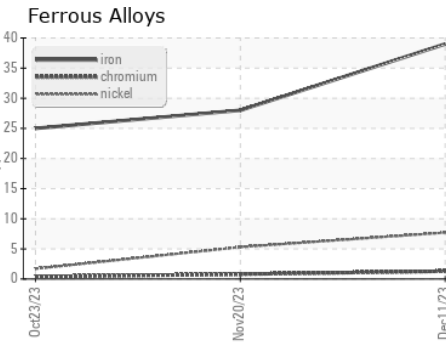
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.0	10.0	9.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086408 **Received** : 12 Dec 2023  
**Lab Number** : 06032653 **Diagnosed** : 15 Dec 2023  
**Unique Number** : 10782444 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 816 - WCA of South Arkansas**  
 3083 Smackover Hwy  
 El Dorado, AR  
 US 71730  
 Contact: Mike Howell  
 mike.howell@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)

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