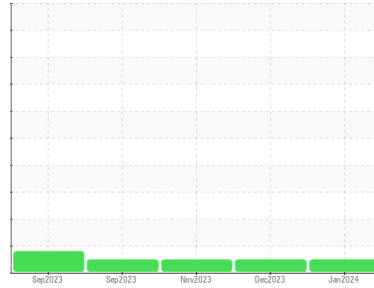




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**229037-603258**

Component  
**Natural Gas Engine**  
Fluid  
**RDL-3647 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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 condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0102584</b>	GFL0102567	GFL0100372
Sample Date	Client Info		<b>16 Jan 2024</b>	18 Dec 2023	30 Nov 2023
Machine Age	hrs	Client Info	<b>2134</b>	2106	2095
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>19</b>	16	2
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	3	<1
Lead	ppm	ASTM D5185m >30	<b>7</b>	8	0
Copper	ppm	ASTM D5185m >35	<b>3</b>	3	<1
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>4</b>	6	0
Barium	ppm	ASTM D5185m 5	<b>3</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>58</b>	58	53
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>835</b>	822	891
Calcium	ppm	ASTM D5185m 1510	<b>1108</b>	1062	994
Phosphorus	ppm	ASTM D5185m 780	<b>978</b>	940	975
Zinc	ppm	ASTM D5185m 870	<b>1188</b>	1138	1171
Sulfur	ppm	ASTM D5185m 2040	<b>3472</b>	2987	2851

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>15</b>	16	4
Sodium	ppm	ASTM D5185m	<b>4</b>	5	4
Potassium	ppm	ASTM D5185m >20	<b>4</b>	2	<1

## INFRA-RED

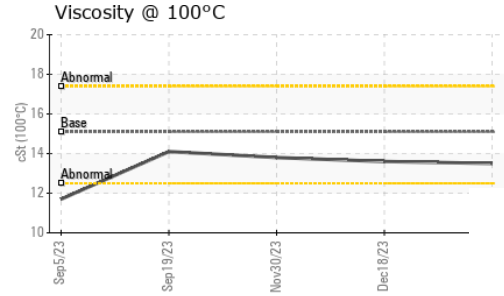
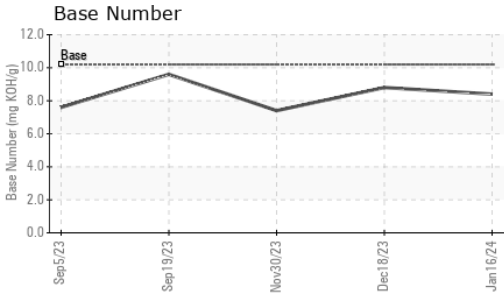
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.6</b>	6.2	5.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.7</b>	18.3	17.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.1</b>	14.7	14.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>8.4</b>	8.8	7.4



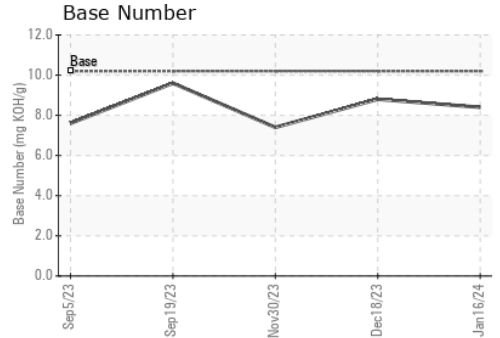
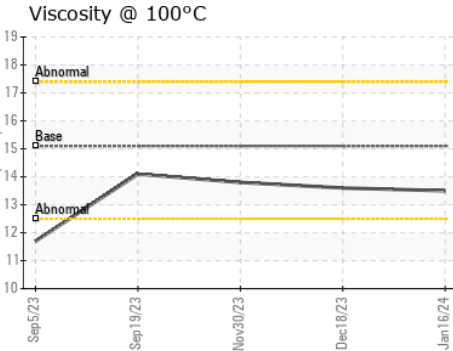
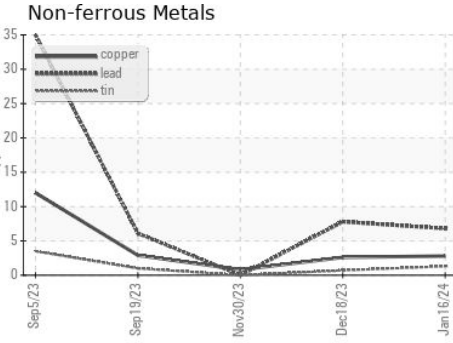
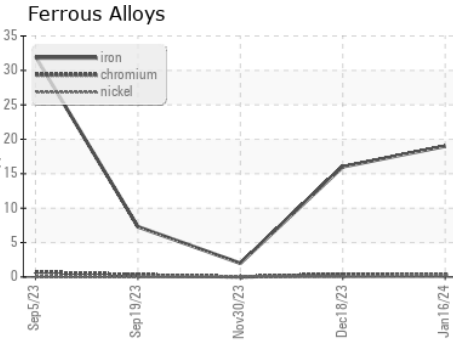
# OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>13.5</b>	13.6	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0102584 **Received** : 22 Jan 2024  
**Lab Number** : **06066497** **Diagnosed** : 23 Jan 2024  
**Unique Number** : 10843174 **Diagnostician** : Angela Borella  
**Test Package** : FLEET

**GFL Environmental - 892 - Pauls Valley Hauling**  
 405 East Airport Industrial Road  
 Pauls Valley, OK  
 US 73075  
 Contact: Tony Graham  
 tgraham2@wcamerica.com  
 T:  
 F:

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)