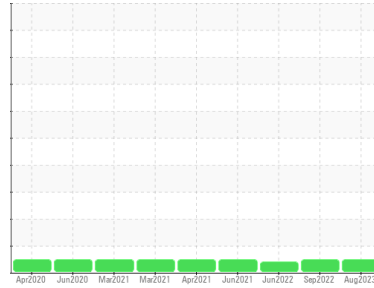




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**929025-9059**  
 Component  
**Diesel Engine**  
 Fluid  
**PHILLIPS 66 15W40 (--- 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>GFL0079762</b>	GFL0049572	GFL0055060
Sample Date	Client Info	<b>11 Aug 2023</b>	07 Sep 2022	29 Jun 2022
Machine Age	hrs	<b>11434</b>	9095	8640
Oil Age	hrs	<b>615</b>	9095	8640
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	MARGINAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	0.4
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	<b>17</b>	13	15
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>6</b>	3	2
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Aluminum	ppm ASTM D5185m >20	<b>5</b>	3	4
Lead	ppm ASTM D5185m >40	<b>0</b>	1	1
Copper	ppm ASTM D5185m >330	<b>0</b>	1	1
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>16</b>	13	17
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>66</b>	55	59
Manganese	ppm ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m	<b>1053</b>	808	786
Calcium	ppm ASTM D5185m	<b>1288</b>	1086	1115
Phosphorus	ppm ASTM D5185m	<b>1094</b>	859	918
Zinc	ppm ASTM D5185m	<b>1505</b>	1104	1127
Sulfur	ppm ASTM D5185m	<b>4283</b>	2483	3116

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	5	5
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	3	2
Potassium	ppm ASTM D5185m >20	<b>0</b>	0	2

## INFRA-RED

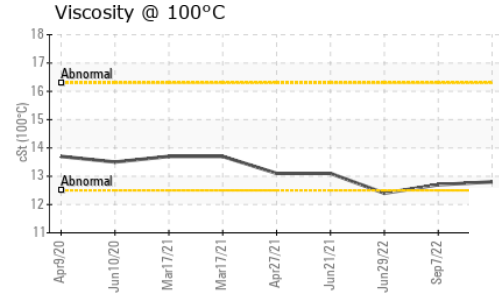
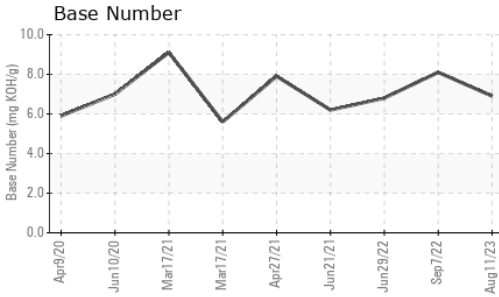
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.6</b>	0.7	0.6
Nitration	Abs/cm *ASTM D7624 >20	<b>8.4</b>	8.8	8.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.6</b>	20.8	19.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.7</b>	15.4	14.6
Base Number (BN)	mg KOH/g ASTM D2896	<b>6.9</b>	8.1	6.8



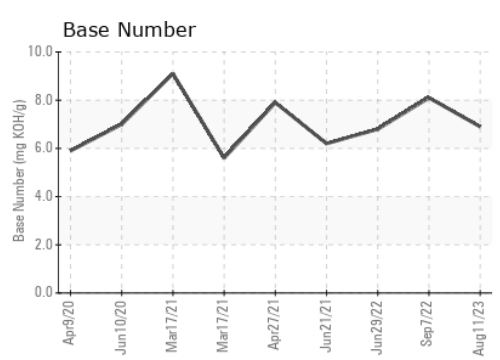
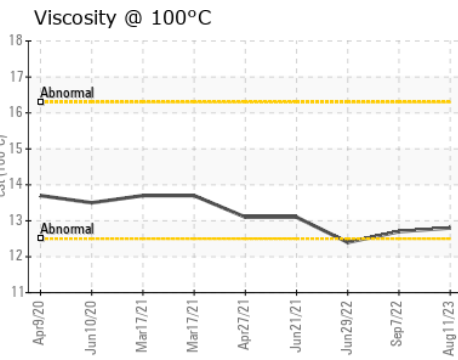
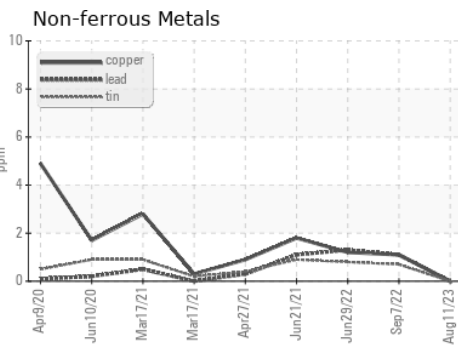
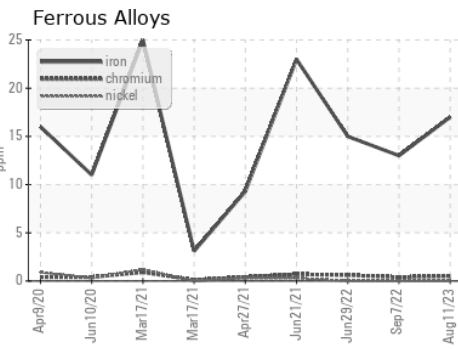
# OIL ANALYSIS REPORT



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	<b>12.8</b>	12.7	▲ 12.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0079762 **Received** : 21 Aug 2023  
**Lab Number** : **05929307** **Diagnosed** : 22 Aug 2023  
**Unique Number** : 10609254 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 663 - Lake Ariel (Scranton Hauling)**  
 17 Industrial Park Rd  
 Lake Ariel, PA  
 US 18436  
 Contact: Eric Merone  
 emerone@countyclecycling.net  
 T:  
 F:

Certificate L2367  
 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)