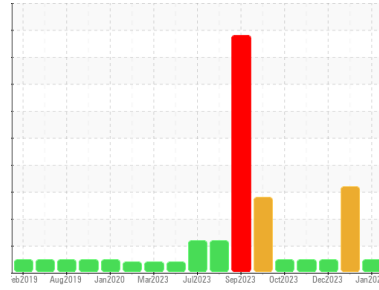




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**721024-361461**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 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>GFL0105149</b>	GFL0090343	GFL0090330
Sample Date	Client Info	<b>02 Jan 2024</b>	11 Dec 2023	05 Dec 2023
Machine Age	hrs	<b>7190</b>	7055	16414
Oil Age	hrs	<b>300</b>	600	300
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not Changed
Sample Status		<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
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>&lt;1</b>	▲ 74	4
Chromium	ppm ASTM D5185m >20	<b>0</b>	5	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	11
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>&lt;1</b>	4	2
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	4	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	6	1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	2	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>&lt;1</b>	1	212
Barium	ppm ASTM D5185m 0	<b>0</b>	11	0
Molybdenum	ppm ASTM D5185m 60	<b>59</b>	129	67
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	1	0
Magnesium	ppm ASTM D5185m 1010	<b>978</b>	898	700
Calcium	ppm ASTM D5185m 1070	<b>1067</b>	1027	1507
Phosphorus	ppm ASTM D5185m 1150	<b>1050</b>	995	771
Zinc	ppm ASTM D5185m 1270	<b>1252</b>	1183	862
Sulfur	ppm ASTM D5185m 2060	<b>3224</b>	3242	3068

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	11	4
Sodium	ppm ASTM D5185m	<b>2</b>	▲ 377	1
Potassium	ppm ASTM D5185m >20	<b>0</b>	▲ 427	4

## INFRA-RED

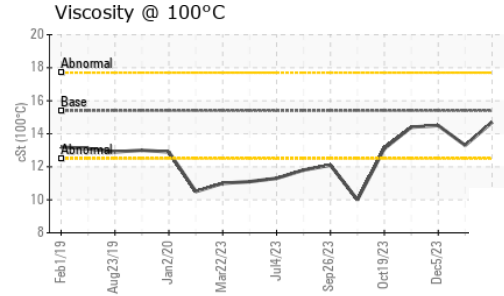
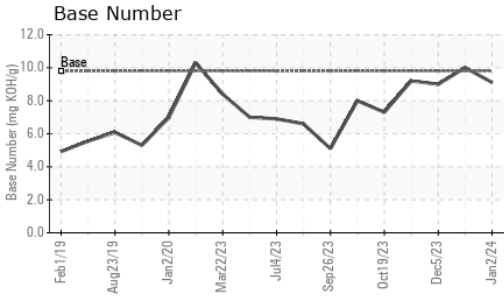
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0</b>	1.3	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>4.0</b>	11.2	4.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.2</b>	21.3	17.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.8</b>	17.0	12.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.1</b>	10.0	9.0



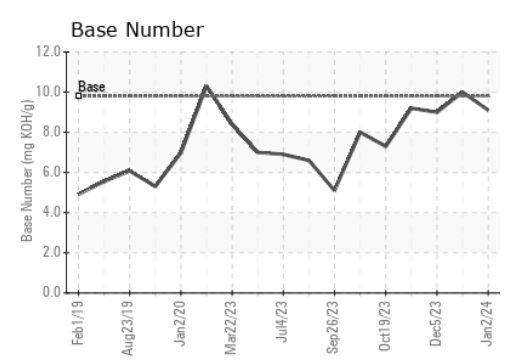
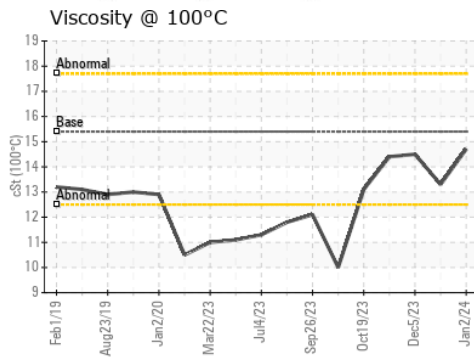
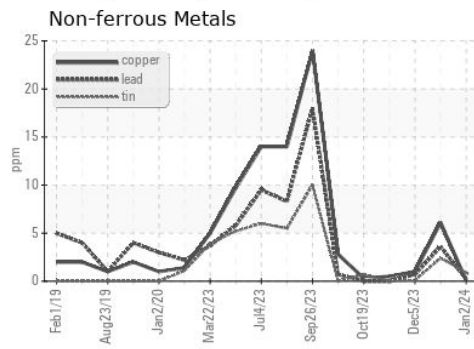
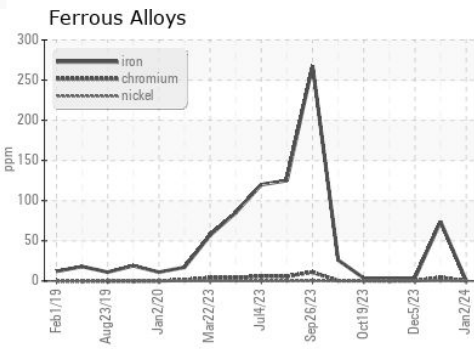
# OIL ANALYSIS REPORT



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	LIGHT	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	15.4	<b>14.7</b>	13.3	14.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105149 **Received** : 04 Jan 2024  
**Lab Number** : **06050635** **Diagnosed** : 04 Jan 2024  
**Unique Number** : 10816584 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 821 - Ozarks Hauling**  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536  
 Contact: Landen Johnson  
 landen.johnson@gflenv.com  
 T: (417)664-0010  
 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)