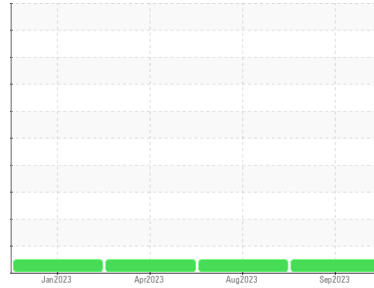




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**920048**

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>GFL0084552</b>	GFL0084557	GFL0078792	
Sample Date	Client Info	<b>29 Sep 2023</b>	07 Aug 2023	03 Apr 2023	
Machine Age	hrs	Client Info	<b>7316</b>	6789	6206
Oil Age	hrs	Client Info	<b>7316</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	N/A	Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

### CONTAMINATION

method	limit/base	current	history1	history2	
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>110	<b>15</b>	15	15
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	6	6
Lead	ppm	ASTM D5185m	>45	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>85	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	<b>0</b>	1	0
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	1
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	66	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>863</b>	1134	953
Calcium	ppm	ASTM D5185m	1070	<b>1024</b>	1174	1028
Phosphorus	ppm	ASTM D5185m	1150	<b>972</b>	1156	973
Zinc	ppm	ASTM D5185m	1270	<b>1134</b>	1462	1219
Sulfur	ppm	ASTM D5185m	2060	<b>2850</b>	4017	3104

### CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>30	<b>4</b>	4	3
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	7	12
Potassium	ppm	ASTM D5185m	>20	<b>17</b>	3	4

### INFRA-RED

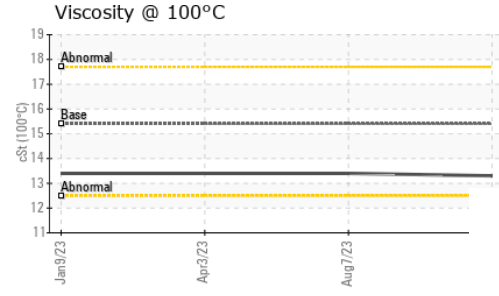
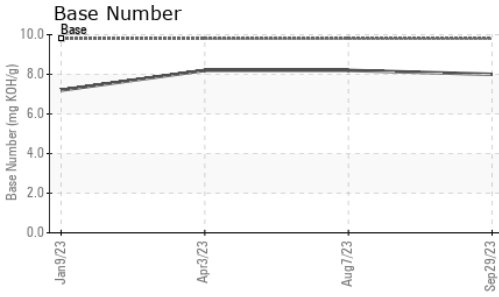
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	8.0	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	19.6	19.2

### FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	15.7	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.0</b>	8.2	8.2



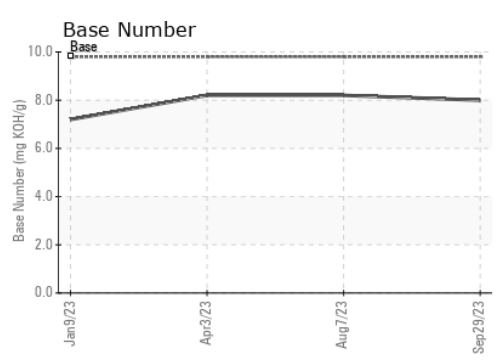
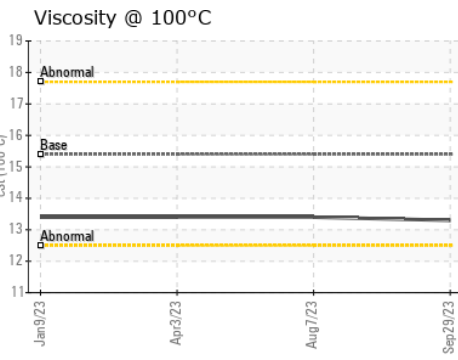
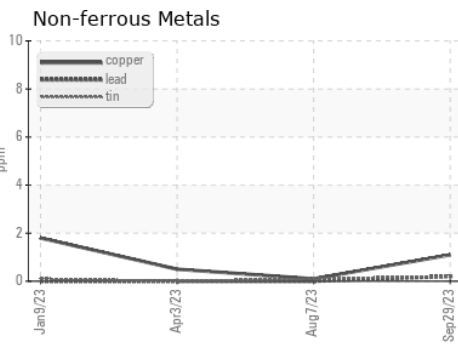
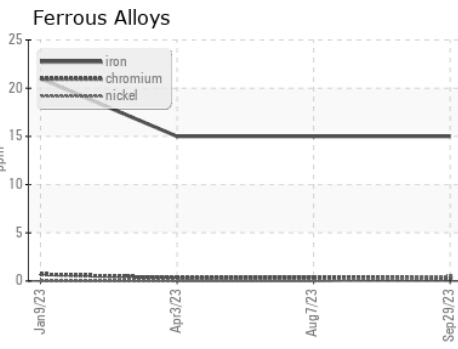
# OIL ANALYSIS REPORT



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	15.4	<b>13.3</b>	13.4	13.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084552      **Received** : 16 Oct 2023  
**Lab Number** : **05979486**      **Diagnosed** : 17 Oct 2023  
**Unique Number** : 10696781      **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 918 - Hartland HC**  
 630 E Industrial Drive  
 Hartland, WI  
 US 53029  
 Contact: David McCall  
 david.mccall@gflenv.com  
 T: (262)369-3069  
 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)