



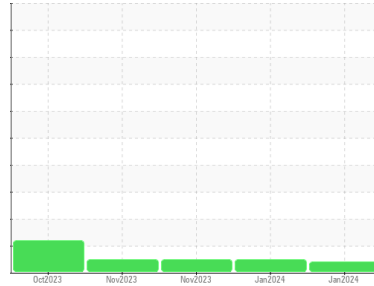
# OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id  
**834052**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0103316</b>	GFL0099934	GFL0099888
Sample Date	Client Info		<b>22 Jan 2024</b>	02 Jan 2024	15 Nov 2023
Machine Age	hrs	Client Info	<b>480</b>	410	472
Oil Age	hrs	Client Info	<b>0</b>	410	0
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ATTENTION</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>	11	7
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>1</b>	2	0
Copper	ppm	ASTM D5185m >150	<b>5</b>	2	1
Tin	ppm	ASTM D5185m >4	<b>2</b>	2	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>15</b>	24	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>42</b>	57	61
Manganese	ppm	ASTM D5185m 0	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>532</b>	572	968
Calcium	ppm	ASTM D5185m 1070	<b>1575</b>	1644	1090
Phosphorus	ppm	ASTM D5185m 1150	<b>718</b>	823	1063
Zinc	ppm	ASTM D5185m 1270	<b>878</b>	1010	1290
Sulfur	ppm	ASTM D5185m 2060	<b>2179</b>	2513	3166

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>9</b>	4	4
Sodium	ppm	ASTM D5185m	<b>7</b>	8	39
Potassium	ppm	ASTM D5185m >20	<b>3</b>	0	7

## INFRA-RED

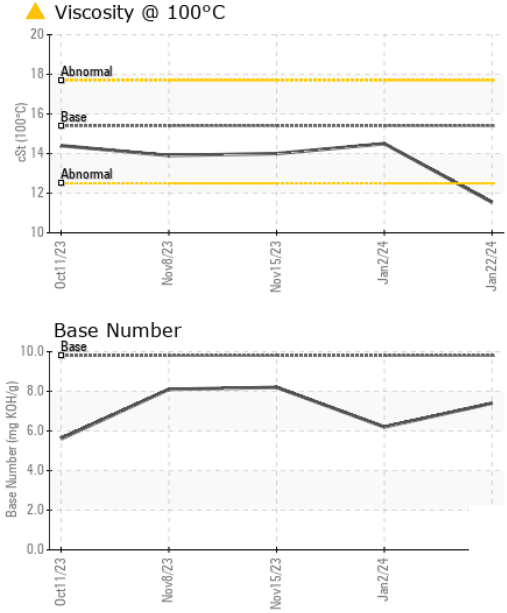
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.7</b>	9.6	7.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.9</b>	19.7	19.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.4</b>	16.8	15.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.4</b>	6.2	8.2



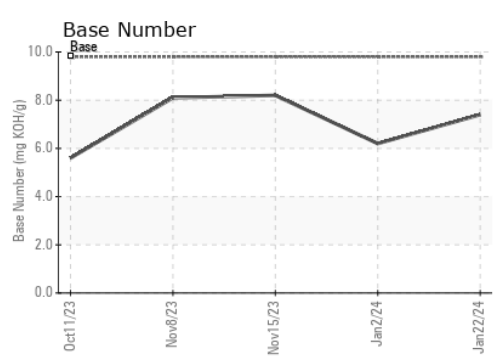
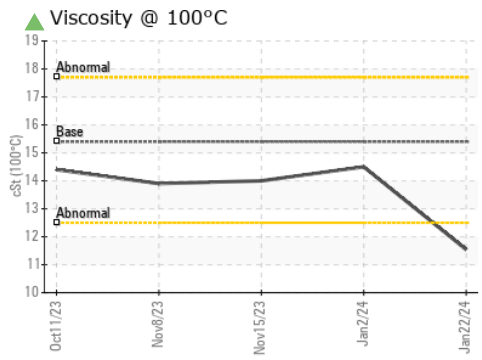
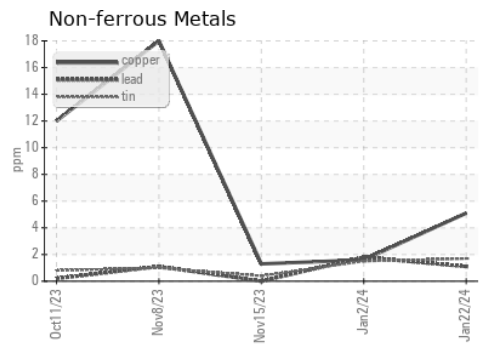
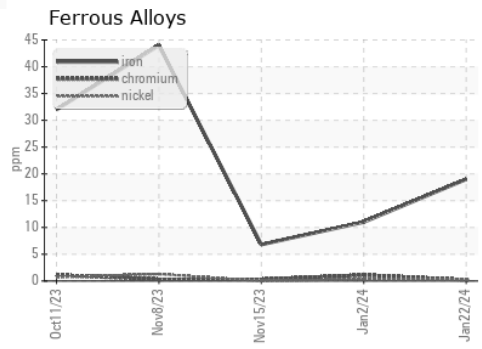
# OIL ANALYSIS REPORT



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	>0.1	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>11.54</b>	14.5	14.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103316 **Received** : 24 Jan 2024  
**Lab Number** : **06069947** **Diagnosed** : 30 Jan 2024  
**Unique Number** : 10846624 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Robert Hart  
 rhart@gflenv.com  
 T: (580)461-1509  
 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)