



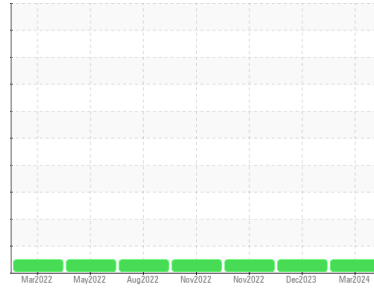
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**428037-402354**  
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>GFL0065697</b>	GFL0065692	GFL0054456
Sample Date	Client Info		<b>12 Mar 2024</b>	18 Dec 2023	27 Nov 2022
Machine Age	mls	Client Info	<b>0</b>	0	189972
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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 >120	<b>8</b>	4	12
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	1	3
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m >15	<b>2</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</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	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	60	63
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>966</b>	1028	970
Calcium	ppm	ASTM D5185m 1070	<b>1079</b>	1106	1127
Phosphorus	ppm	ASTM D5185m 1150	<b>941</b>	1057	1019
Zinc	ppm	ASTM D5185m 1270	<b>1235</b>	1301	1276
Sulfur	ppm	ASTM D5185m 2060	<b>3478</b>	3246	3335

## CONTAMINANTS

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

## INFRA-RED

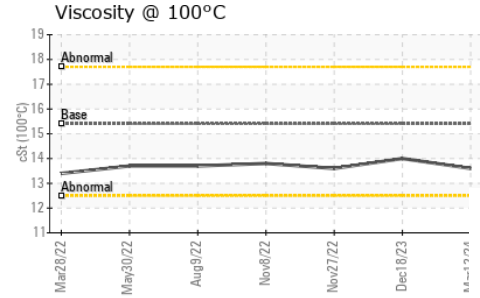
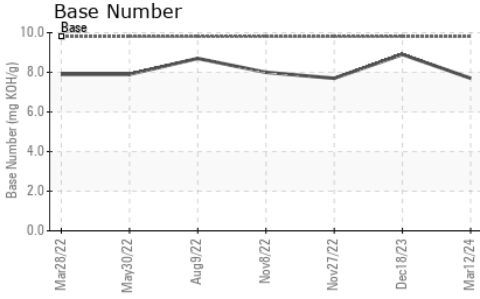
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.4</b>	0.2	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.5</b>	5.6	10.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.6</b>	18.0	21.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.8</b>	13.7	16.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.7</b>	8.9	7.7



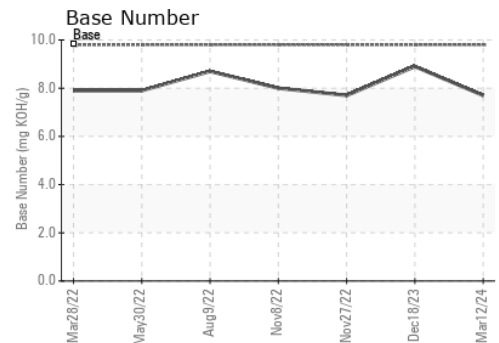
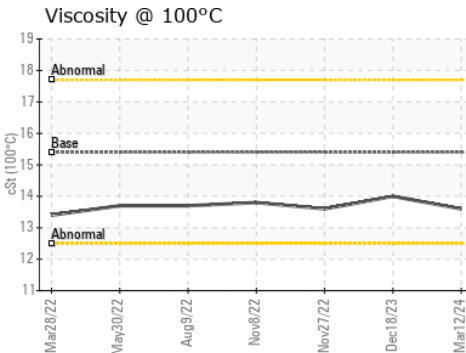
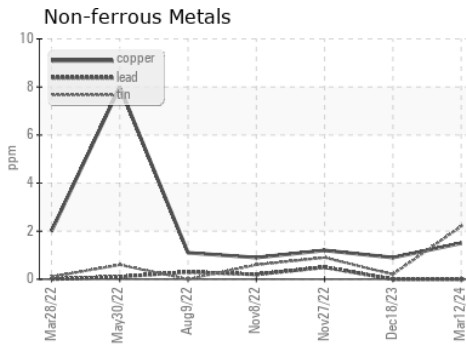
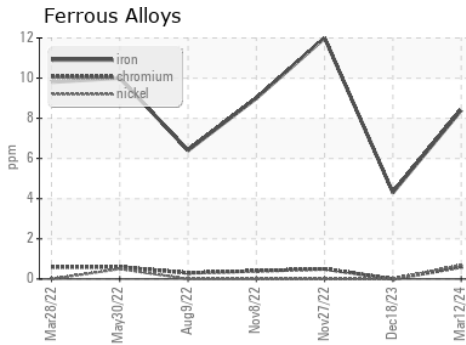
# OIL ANALYSIS REPORT



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>13.6</b>	14.0	13.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0065697  
**Lab Number** : **06131567**  
**Unique Number** : 10951032  
**Test Package** : FLEET

**Received** : 28 Mar 2024  
**Tested** : 28 Mar 2024  
**Diagnosed** : 28 Mar 2024 - Wes Davis

**GFL Environmental - 823 - Central Missouri Hauling**  
 24461 Oak Grove Lane  
 Sedalia, MO  
 US 65301

**Contact: Terry Randolph**  
 trandolph@gflenv.com

T: (660)631-2116

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)