



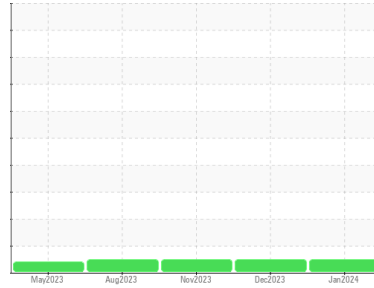
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**913153**  
 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>GFL0101974</b>	GFL0101958	GFL0078379
Sample Date	Client Info		<b>30 Jan 2024</b>	27 Dec 2023	07 Nov 2023
Machine Age	hrs	Client Info	<b>2409</b>	2198	1904
Oil Age	hrs	Client Info	<b>505</b>	294	665
Oil Changed	Client Info		<b>Changed</b>	Not Changd	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
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 >80	<b>7</b>	8	12
Chromium	ppm	ASTM D5185m >5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >30	<b>7</b>	7	8
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m >150	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m >5	<b>&lt;1</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>3</b>	5	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	53	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>917</b>	1044	1003
Calcium	ppm	ASTM D5185m 1070	<b>1034</b>	1191	1149
Phosphorus	ppm	ASTM D5185m 1150	<b>1077</b>	1022	1071
Zinc	ppm	ASTM D5185m 1270	<b>1273</b>	1199	1316
Sulfur	ppm	ASTM D5185m 2060	<b>3052</b>	3137	2877

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>4</b>	18	8
Sodium	ppm	ASTM D5185m	<b>1</b>	1	1
Potassium	ppm	ASTM D5185m >20	<b>11</b>	11	16

## INFRA-RED

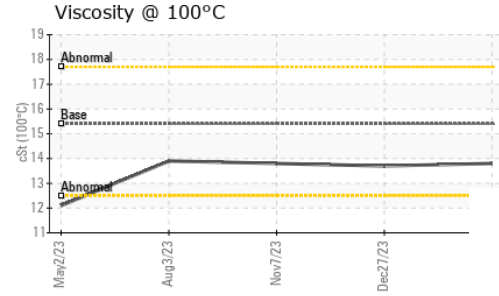
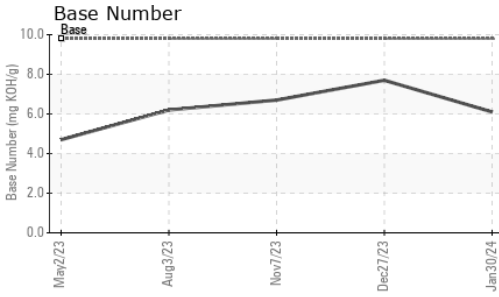
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	7.5	9.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.2</b>	20.4	20.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.9</b>	17.3	17.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.1</b>	7.7	6.7



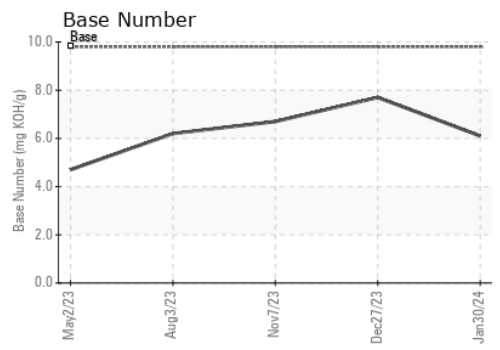
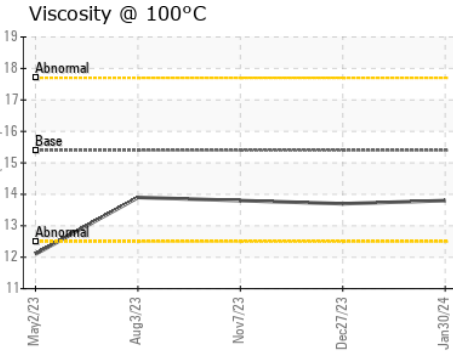
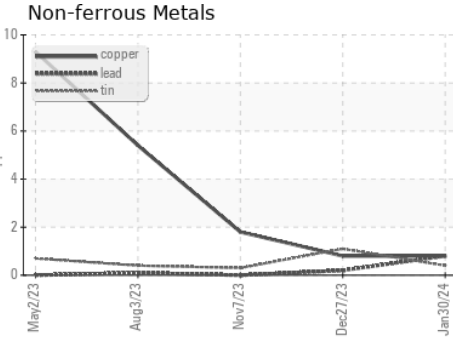
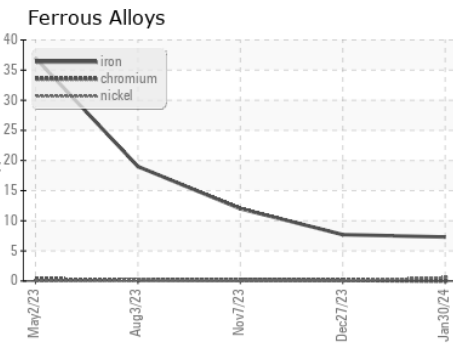
# OIL ANALYSIS REPORT



PARAMETER	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

PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101974 **Recieved** : 31 Jan 2024  
**Lab Number** : **06075598** **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857689 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 894 - Ada Hauling**  
 1904 North Broadway, Suite D  
 Ada, OK  
 US 74820  
 Contact: Johnny Spurlock  
 jspurlock@gflenv.com  
 T: (405)664-4476  
 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)