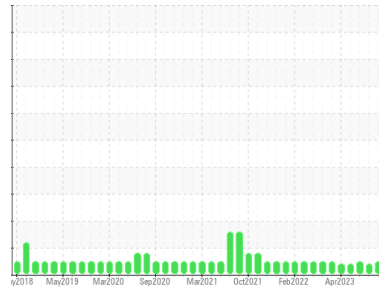




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(H904550)**

Machine Id  
**2683**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0099784</b>	GFL0099749	GFL0073290
Sample Date	Client Info		<b>23 May 2024</b>	27 Feb 2024	08 Nov 2023
Machine Age	hrs	Client Info	<b>600</b>	600	600
Oil Age	hrs	Client Info	<b>12684</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ATTENTION	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	0.3	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	0.0

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>16</b>	11	32
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>4</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>7</b>	8	3
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	<1	30
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	<1	4
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	1
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>14</b>	9	18
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	65	110
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>991</b>	795	905
Calcium	ppm	ASTM D5185m 1070	<b>1222</b>	948	1164
Phosphorus	ppm	ASTM D5185m 1150	<b>1108</b>	920	971
Zinc	ppm	ASTM D5185m 1270	<b>1363</b>	1148	1233
Sulfur	ppm	ASTM D5185m 2060	<b>3868</b>	3002	2816

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>6</b>	6	10
Sodium	ppm	ASTM D5185m	<b>2</b>	3	224
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	50

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	2.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.8</b>	6.8	14.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.2</b>	17.6	28.3

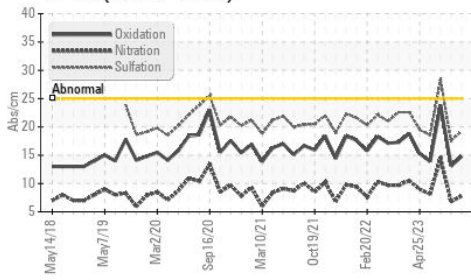
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.8</b>	13.1	23.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.0</b>	6.5	6.7

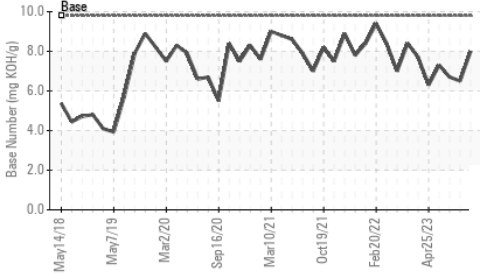


# OIL ANALYSIS REPORT

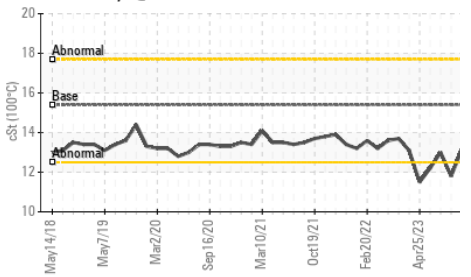
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



## VISUAL

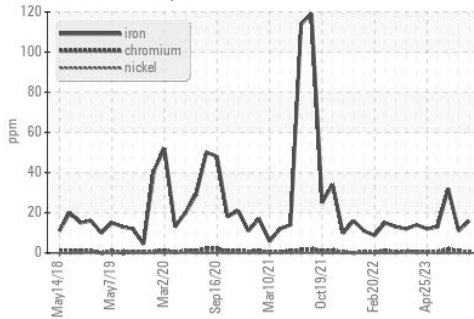
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*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

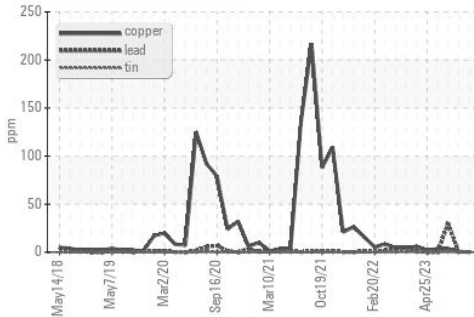
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	11.8

## GRAPHS

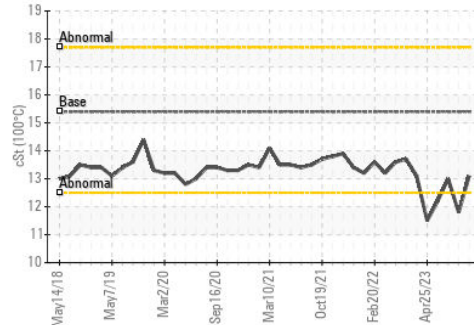
Ferrous Alloys



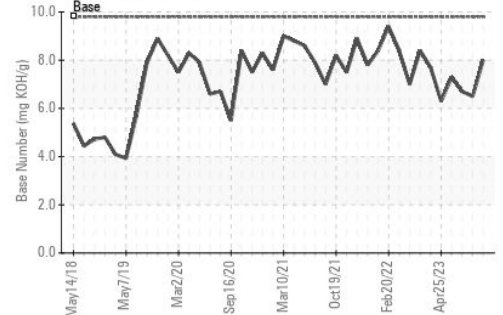
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0099784  
**Lab Number** : 06193200  
**Unique Number** : 11049952  
**Test Package** : FLEET

**GFL Environmental - 102 - Morristown TN**  
 415 Ryder Lane, PO Box 1894  
 Morristown, TN  
 US 37813

Contact: Ricky Dunlap  
 ricky.dunlap@gflenv.com  
 T: (800)207-6618

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)