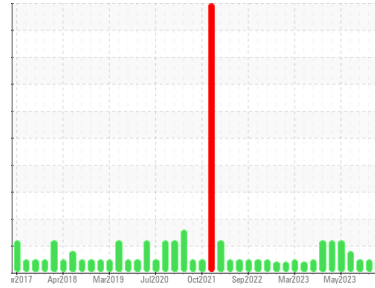




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10690**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (7 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>GFL0088714</b>	GFL0086154	GFL0083224
Sample Date	Client Info	<b>16 Aug 2023</b>	15 Jul 2023	22 Jun 2023
Machine Age	hrs	<b>19285</b>	19114	18982
Oil Age	hrs	<b>456</b>	765	1215
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	<b>55</b>	37	22
Chromium	ppm ASTM D5185m >5	<b>2</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>7</b>	6	2
Lead	ppm ASTM D5185m >25	<b>1</b>	0	<1
Copper	ppm ASTM D5185m >100	<b>19</b>	18	19
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	0
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>6</b>	0	22
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	61	63
Manganese	ppm ASTM D5185m 0	<b>1</b>	1	<1
Magnesium	ppm ASTM D5185m 1010	<b>793</b>	810	724
Calcium	ppm ASTM D5185m 1070	<b>1151</b>	1113	1089
Phosphorus	ppm ASTM D5185m 1150	<b>914</b>	939	913
Zinc	ppm ASTM D5185m 1270	<b>1144</b>	1170	1086
Sulfur	ppm ASTM D5185m 2060	<b>3037</b>	3337	2894

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>9</b>	6	5
Sodium	ppm ASTM D5185m	<b>8</b>	4	0
Potassium	ppm ASTM D5185m >20	<b>3</b>	1	<1

## INFRA-RED

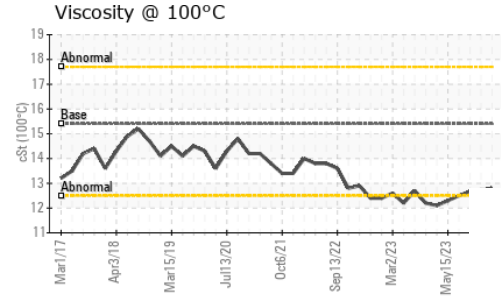
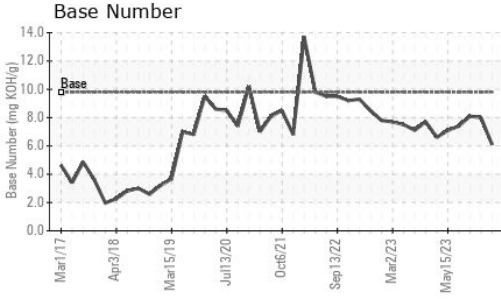
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>2.5</b>	1.8	1
Nitration	Abs/cm *ASTM D7624 >20	<b>9.3</b>	7.9	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.9</b>	19.9	18.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.3</b>	12.3	13.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.1</b>	8.0	8.1



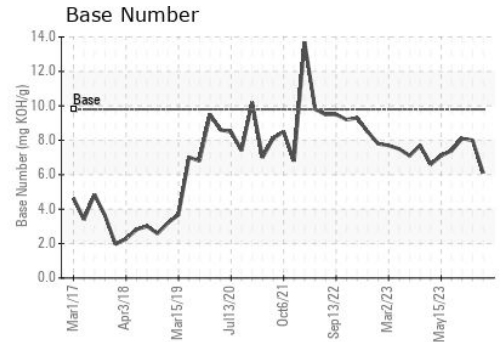
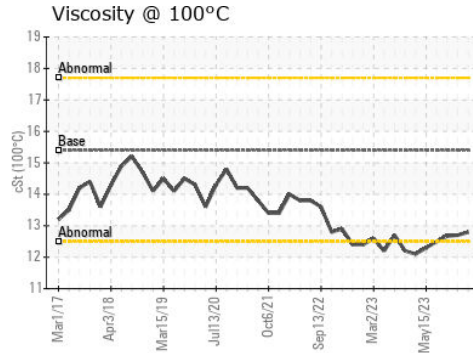
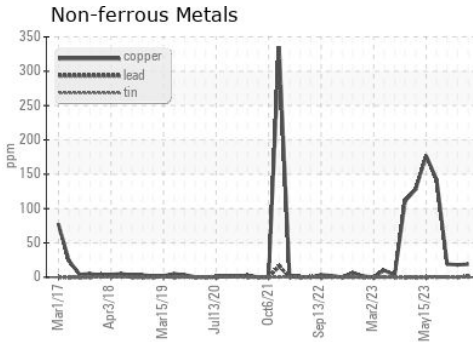
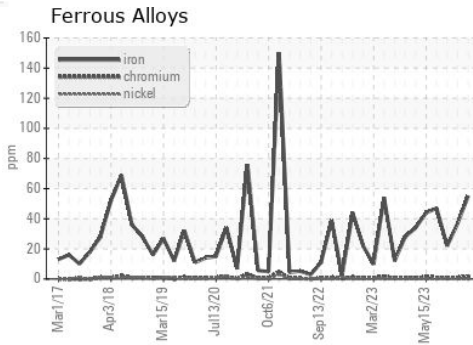
# OIL ANALYSIS REPORT



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>12.8</b>	12.7	12.67

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0088714  
 Lab Number : **05927045**  
 Unique Number : 10606992  
 Test Package : FLEET

**GFL Environmental - 010 - Stockbridge**  
 1280 Rum Creek Parkway  
 Stockbridge, GA  
 US 30281  
 Contact: JOSHUA TINKER  
 joshuatinker@gflenv.com

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)

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F: