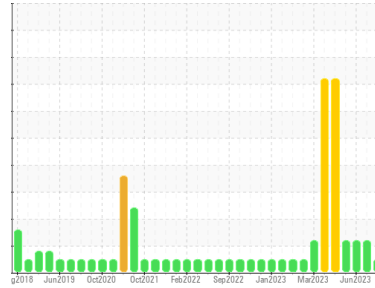




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10855**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (13 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>GFL0088712</b>	GFL0083221	GFL0083265
Sample Date	Client Info	<b>16 Aug 2023</b>	23 Jun 2023	08 Jun 2023
Machine Age	hrs	<b>15628</b>	15305	15195
Oil Age	hrs	<b>323</b>	1041	931
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not Changed
Sample Status		<b>NORMAL</b>	ATTENTION	ABNORMAL

## 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>	0.0	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	<b>5</b>	14	10
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	1	<1
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>&lt;1</b>	2	<1
Lead	ppm ASTM D5185m >25	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185m >100	<b>&lt;1</b>	10	12
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>18</b>	23	25
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>58</b>	71	68
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>807</b>	725	808
Calcium	ppm ASTM D5185m 1070	<b>1102</b>	1071	1111
Phosphorus	ppm ASTM D5185m 1150	<b>921</b>	908	936
Zinc	ppm ASTM D5185m 1270	<b>1123</b>	1072	1180
Sulfur	ppm ASTM D5185m 2060	<b>3389</b>	2871	3549

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	13	11
Sodium	ppm ASTM D5185m	<b>19</b>	▲ 286	▲ 272
Potassium	ppm ASTM D5185m >20	<b>3</b>	4	4

## INFRA-RED

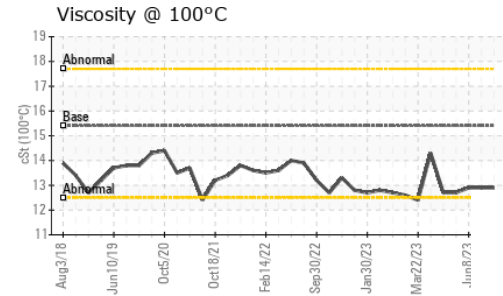
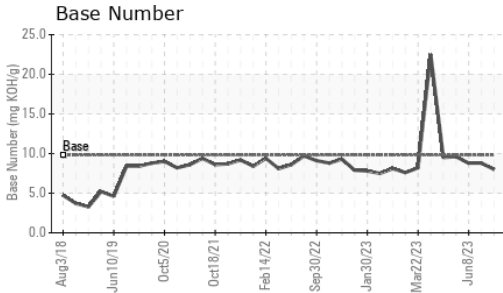
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.2</b>	0.5	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>4.9</b>	6.8	6.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>15.9</b>	18.2	18.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>10.9</b>	12.2	11.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.0</b>	8.8	8.8



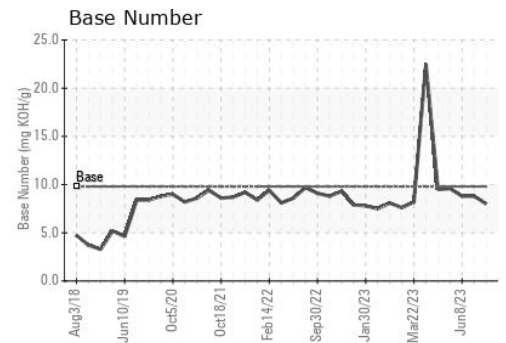
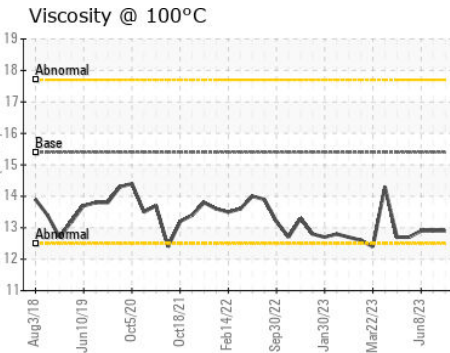
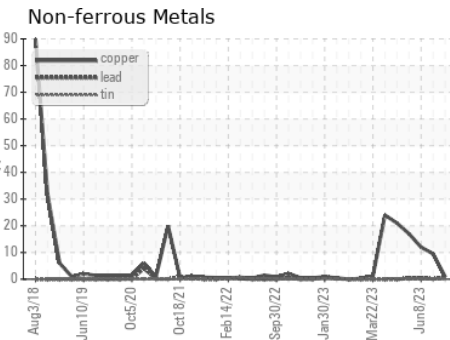
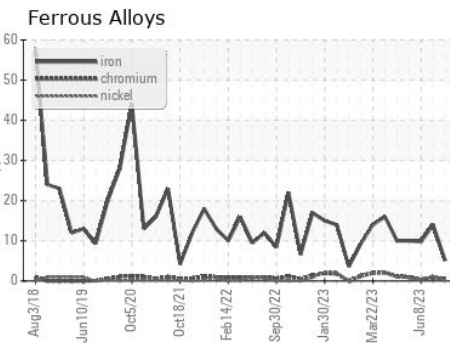
# OIL ANALYSIS REPORT



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	12.9	12.9

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0088712 Received : 17 Aug 2023  
 Lab Number : 05927044 Diagnosed : 17 Aug 2023  
 Unique Number : 10606991 Diagnostician : Wes Davis  
 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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