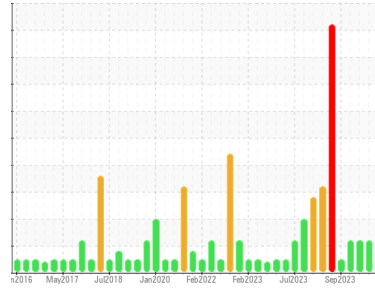




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10530**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (7 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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>GFL0112307</b>	GFL0109929	GFL0101196
Sample Date	Client Info	<b>20 Feb 2024</b>	30 Jan 2024	17 Nov 2023
Machine Age	hrs	<b>21740</b>	21605	21164
Oil Age	hrs	<b>540</b>	405	324
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd
Sample Status		<b>NORMAL</b>	ATTENTION	ABNORMAL

## 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 >100	<b>3</b>	11	24
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>1</b>	4	3
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>1</b>	1	29
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>18</b>	7	11
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>59</b>	59	67
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>836</b>	842	877
Calcium	ppm ASTM D5185m 1070	<b>986</b>	943	1072
Phosphorus	ppm ASTM D5185m 1150	<b>941</b>	950	1009
Zinc	ppm ASTM D5185m 1270	<b>1102</b>	1131	1188
Sulfur	ppm ASTM D5185m 2060	<b>2825</b>	2824	3054

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>0</b>	13	8
Sodium	ppm ASTM D5185m	<b>21</b>	▲ 133	▲ 264
Potassium	ppm ASTM D5185m >20	<b>0</b>	11	2

## INFRA-RED

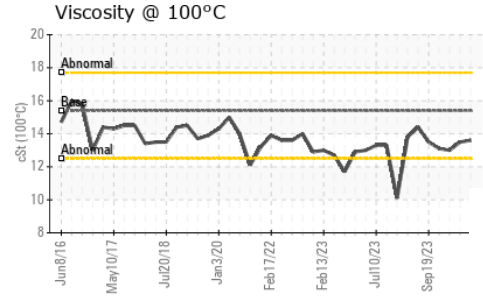
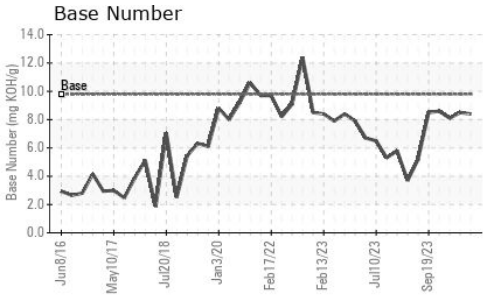
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.5	1.1
Nitration	Abs/cm *ASTM D7624 >20	<b>5.0</b>	6.7	9.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.2</b>	18.0	20.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.5</b>	13.0	15.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.4</b>	8.5	8.1



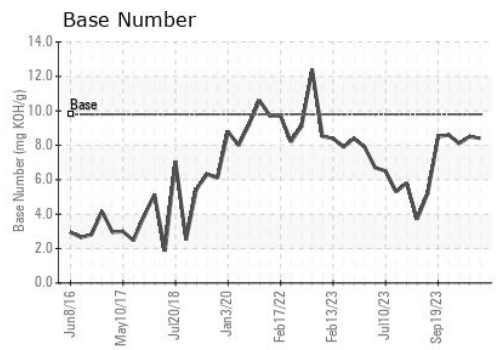
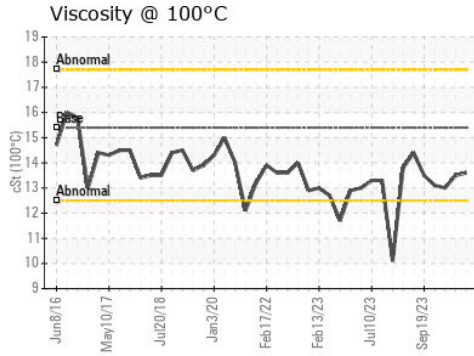
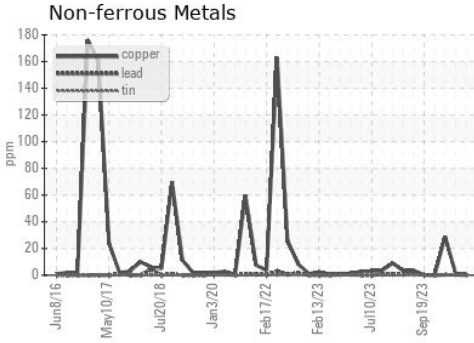
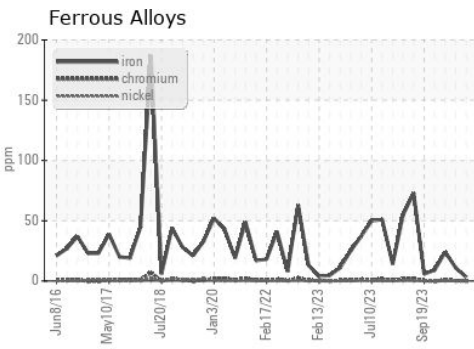
# OIL ANALYSIS REPORT



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	13.6	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0112307  
**Lab Number** : 06096721  
**Unique Number** : 10889574  
**Test Package** : FLEET  
**Received** : 22 Feb 2024  
**Tested** : 23 Feb 2024  
**Diagnosed** : 23 Feb 2024 - Wes Davis

**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)