



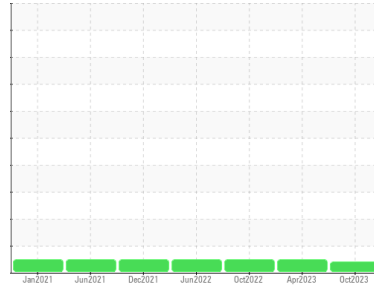
# OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id  
**529006**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

### Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0055376</b>	GFL0078515	GFL0061941
Sample Date	Client Info	<b>06 Oct 2023</b>	28 Apr 2023	21 Oct 2022
Machine Age	hrs	<b>0</b>	4297	3847
Oil Age	hrs	<b>4754</b>	0	292
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >120	<b>12</b>	11	9
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >330	<b>2</b>	4	4
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 0	<b>20</b>	2	6
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>45</b>	61	60
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>570</b>	987	960
Calcium	ppm	ASTM D5185(m) 1070	<b>1705</b>	1145	1138
Phosphorus	ppm	ASTM D5185(m) 1150	<b>774</b>	1092	1074
Zinc	ppm	ASTM D5185(m) 1270	<b>948</b>	1203	1191
Sulfur	ppm	ASTM D5185(m) 2060	<b>2137</b>	2560	2629
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	<b>6</b>	4	4
Sodium	ppm	ASTM D5185(m)	<b>3</b>	3	2
Potassium	ppm	ASTM D5185(m) >20	<b>2</b>	4	2
Fuel	%	ASTM D7593* >3.0	<b>0.5</b>	<1.0	<1.0

## INFRA-RED

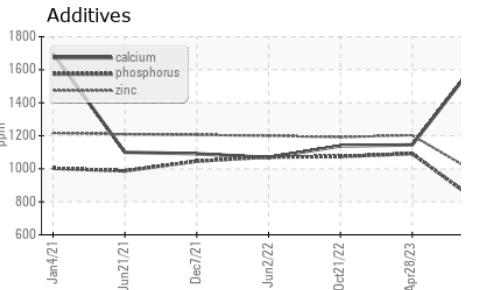
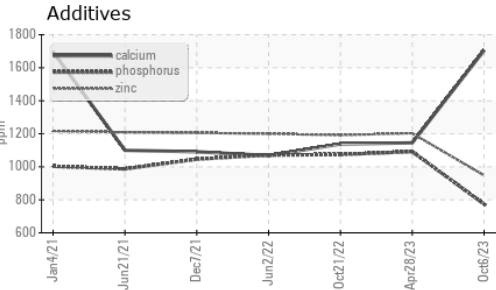
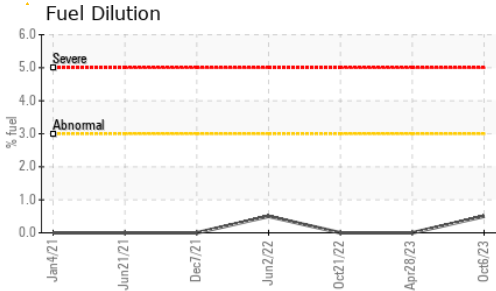
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >4	<b>0.2</b>	0.2	0
Nitration	Abs/cm	ASTM D7624* >20	<b>8.8</b>	7.9	7.1
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>22.8</b>	19.7	19.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>20.9</b>	15.4	14.5



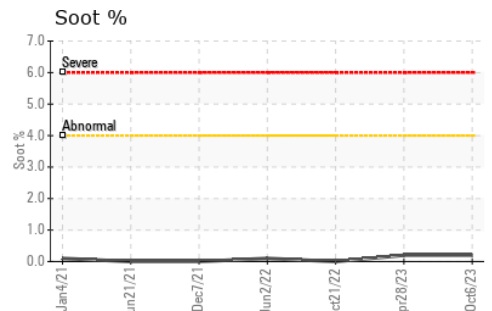
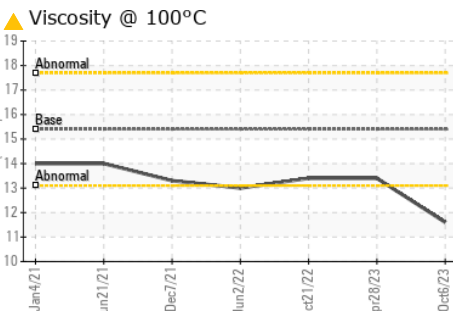
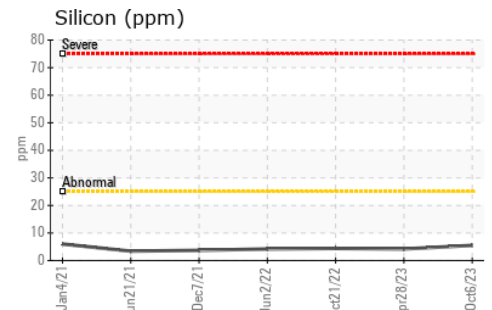
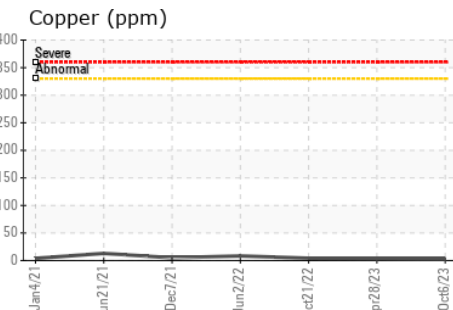
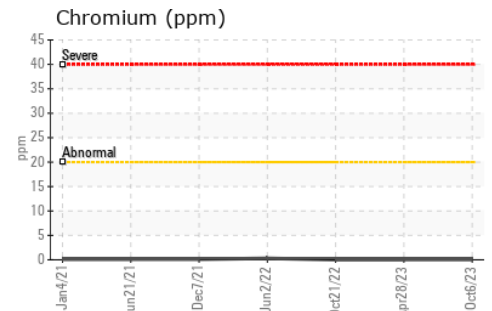
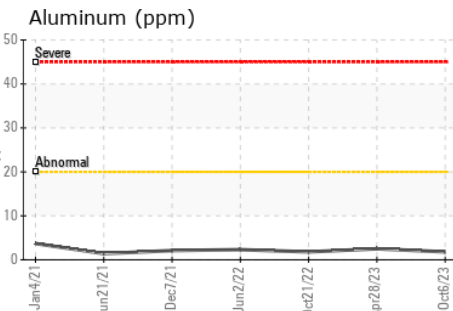
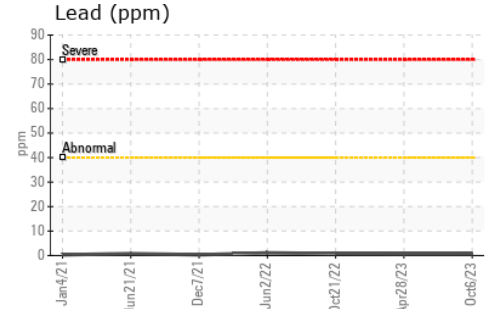
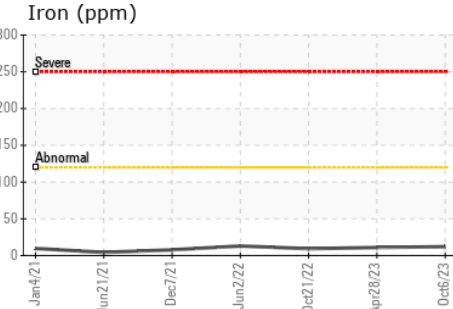
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.4	▲ 11.6	13.4

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**  
**Sample No.** : GFL0055376 **Received** : 11 Oct 2023 2700 Deziel Dr  
**Lab Number** : 02588164 **Diagnosed** : 12 Oct 2023 Windsor, ON  
**Unique Number** : 5657230 **Diagnostician** : Kevin Marson CA N8W 5H8  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel ) Contact: Dave Varga  
 dvarga@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.