

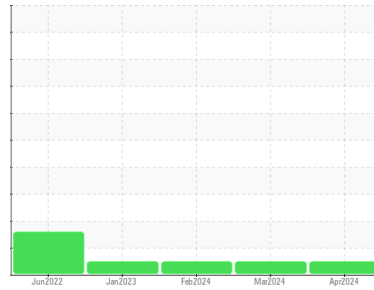


# OIL ANALYSIS REPORT



Area  
**(69J4UN)**  
 Machine Id  
**929096-205270**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### Sample Rating Trend



**NORMAL**



### 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>GFL0108013</b>	GFL0108003	GFL0108101
Sample Date	Client Info	<b>17 Apr 2024</b>	21 Mar 2024	02 Feb 2024
Machine Age	hrs	Client Info	0	4310
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	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
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 >120	<b>6</b>	5	5
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm ASTM D5185m >5	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	3	3
Lead	ppm ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>0</b>	3	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	2	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>3</b>	<1	3
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>58</b>	56	60
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>907</b>	966	968
Calcium	ppm ASTM D5185m 1070	<b>1049</b>	1083	1045
Phosphorus	ppm ASTM D5185m 1150	<b>994</b>	950	1078
Zinc	ppm ASTM D5185m 1270	<b>1207</b>	1258	1305
Sulfur	ppm ASTM D5185m 2060	<b>3273</b>	3674	3201

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>6</b>	5	3
Sodium	ppm ASTM D5185m	<b>4</b>	3	3
Potassium	ppm ASTM D5185m >20	<b>2</b>	2	<1

### INFRA-RED

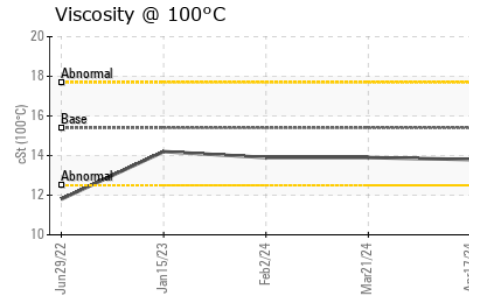
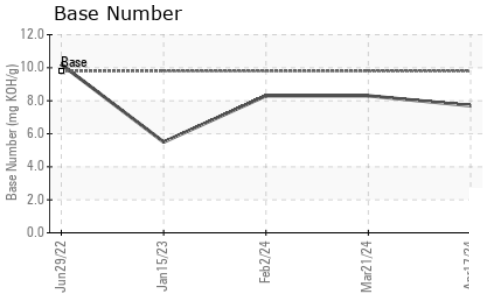
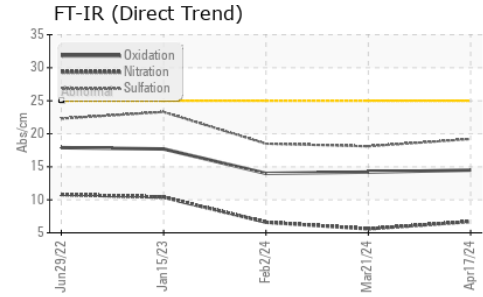
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.4</b>	0.2	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>6.7</b>	5.6	6.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.2</b>	18.1	18.5

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.5</b>	14.2	14.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.7</b>	8.3	8.3



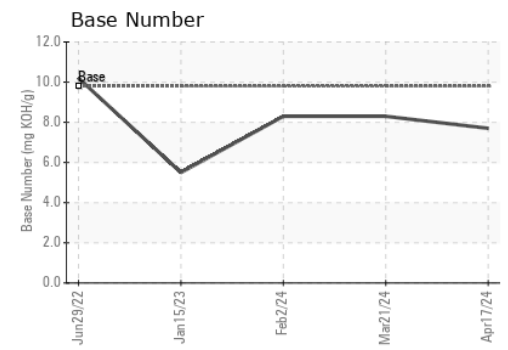
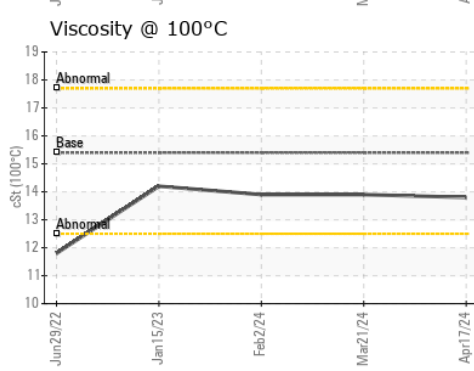
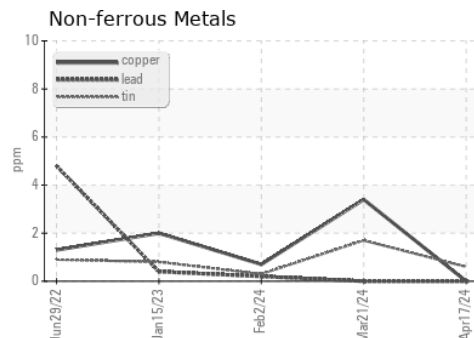
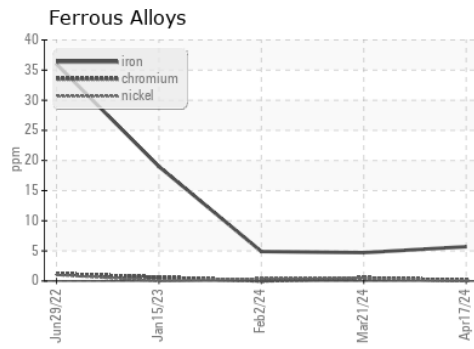
# OIL ANALYSIS REPORT



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>13.8</b>	13.9	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108013      **Received** : 23 Apr 2024  
**Lab Number** : **06157278**      **Tested** : 24 Apr 2024  
**Unique Number** : 10992701      **Diagnosed** : 24 Apr 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 823 - Central Missouri Hauling**  
 24461 Oak Grove Lane  
 Sedalia, MO  
 US 65301

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)