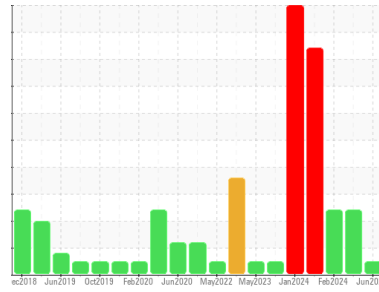




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**727107-361681**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0125211</b>	GFL0114461	GFL0103987
Sample Date	Client Info		<b>05 Jun 2024</b>	27 Feb 2024	06 Feb 2024
Machine Age	hrs	Client Info	<b>17726</b>	17157	17023
Oil Age	hrs	Client Info	<b>0</b>	17157	17023
Oil Changed	Client Info		<b>Changed</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	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>48</b>	10	10
Chromium	ppm	ASTM D5185m >20	<b>2</b>	0	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>4</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>8</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	12	15
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</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>10</b>	9	12
Barium	ppm	ASTM D5185m 0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m 60	<b>54</b>	80	79
Manganese	ppm	ASTM D5185m 0	<b>1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>909</b>	890	893
Calcium	ppm	ASTM D5185m 1070	<b>1125</b>	1099	1194
Phosphorus	ppm	ASTM D5185m 1150	<b>1050</b>	1009	1053
Zinc	ppm	ASTM D5185m 1270	<b>1246</b>	1233	1331
Sulfur	ppm	ASTM D5185m 2060	<b>3533</b>	2724	3252

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>11</b>	5	5
Sodium	ppm	ASTM D5185m	<b>7</b>	▲ 102	▲ 83
Potassium	ppm	ASTM D5185m >20	<b>7</b>	▲ 195	▲ 163

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.6</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>13.2</b>	8.9	7.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.5</b>	20.5	19.5

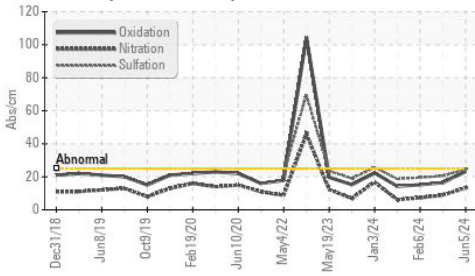
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.2</b>	16.4	15.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.1</b>	7.9	9.1

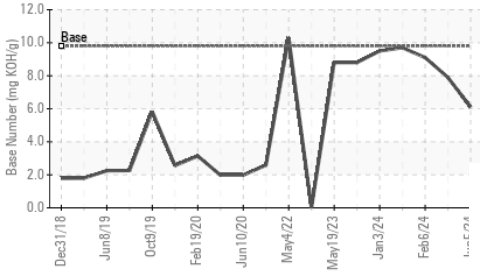


# OIL ANALYSIS REPORT

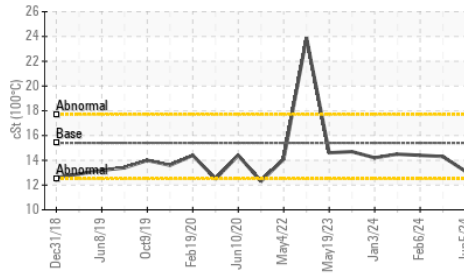
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

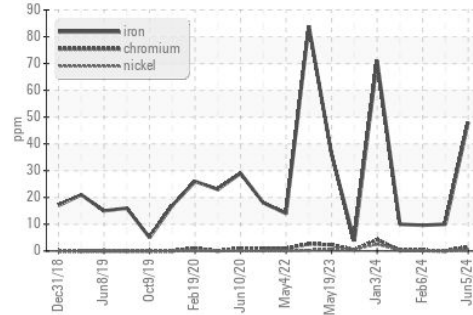


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

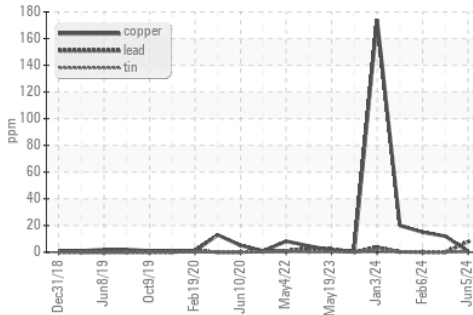
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	14.3

## GRAPHS

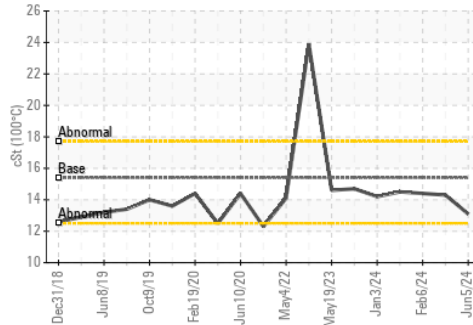
Ferrous Alloys



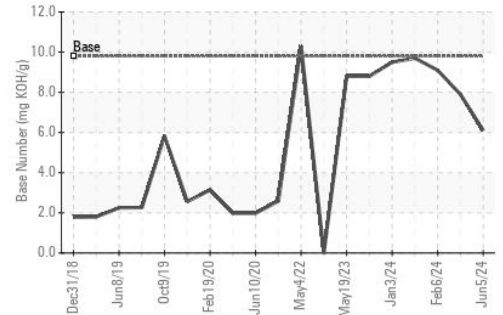
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0125211  
 Lab Number : 06217469  
 Unique Number : 11090333  
 Test Package : FLEET

Received : 21 Jun 2024

Tested : 24 Jun 2024

Diagnosed : 24 Jun 2024 - Wes Davis

GFL Environmental - 865 - East Mount Hauling

7213 East Mount Houston Road

Houston, TX

US 77050

Contact: Saul Castillo

saul.castillo@gflenv.com

T:

F:

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)