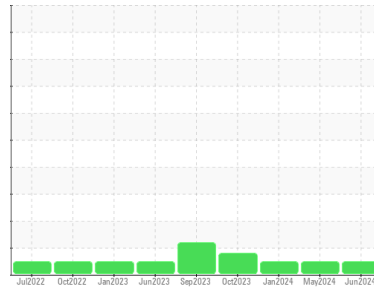




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**420036**

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>GFL0116050</b>	GFL0116021	GFL0097484
Sample Date	Client Info		<b>12 Jun 2024</b>	22 May 2024	05 Jan 2024
Machine Age	hrs	Client Info	<b>8517</b>	8364	7810
Oil Age	hrs	Client Info	<b>5891</b>	5891	5891
Oil Changed		Client Info	<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## 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>5</b>	19	11
Chromium	ppm	ASTM D5185m >20	<b>0</b>	2	0
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	1	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	3	<1
Lead	ppm	ASTM D5185m >40	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m >330	<b>0</b>	1	0
Tin	ppm	ASTM D5185m >15	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>10</b>	6	7
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m 60	<b>56</b>	64	56
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>932</b>	962	901
Calcium	ppm	ASTM D5185m 1070	<b>1063</b>	1125	1028
Phosphorus	ppm	ASTM D5185m 1150	<b>1088</b>	1012	925
Zinc	ppm	ASTM D5185m 1270	<b>1257</b>	1263	1239
Sulfur	ppm	ASTM D5185m 2060	<b>3684</b>	3139	2870

## CONTAMINANTS

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

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.4</b>	9.5	7.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.3</b>	20.3	18.7

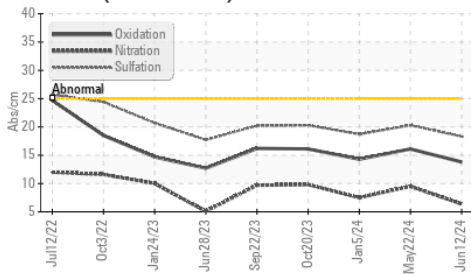
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.8</b>	16.1	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	7.2	8.1

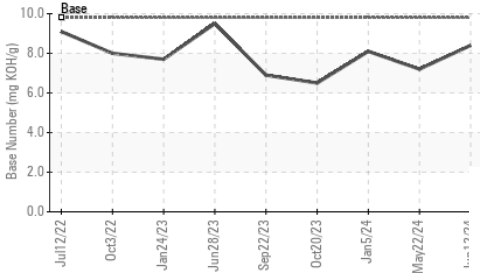


# OIL ANALYSIS REPORT

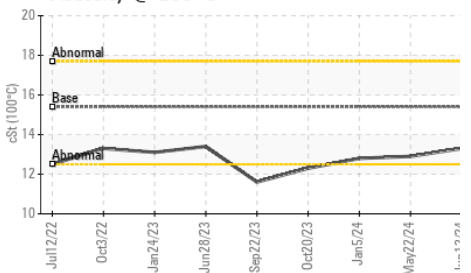
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

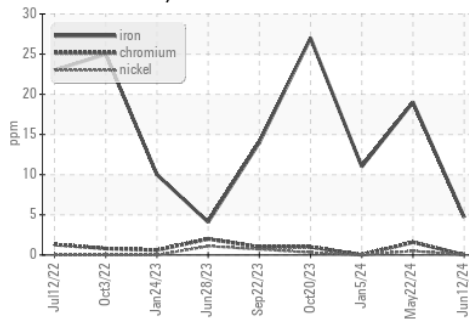


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

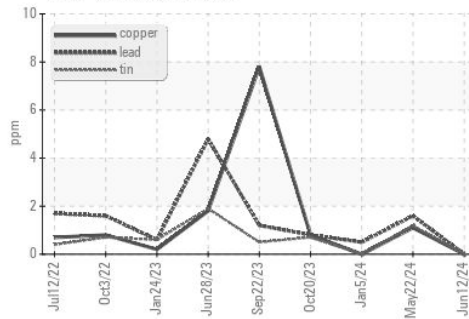
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	12.9

## GRAPHS

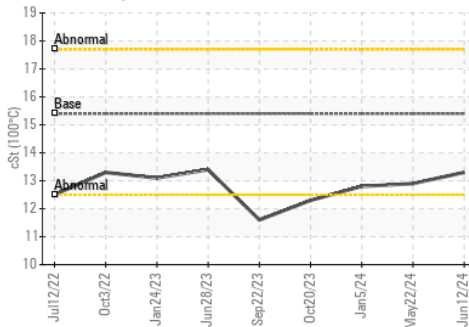
Ferrous Alloys



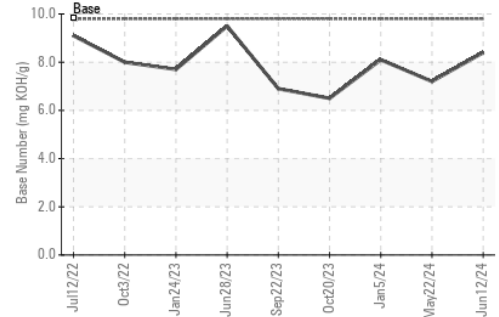
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116050  
**Lab Number** : 06211258  
**Unique Number** : 11084122  
**Test Package** : FLEET

**GFL Environmental - 641 - Alpena**  
 1241 KING SETTLEMENT RD  
 ALPENA, MI  
 US 49707

Contact: DYLAN TOLAN  
 dylan.tolan@gflenv.com  
 T: (989)854-7203

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)