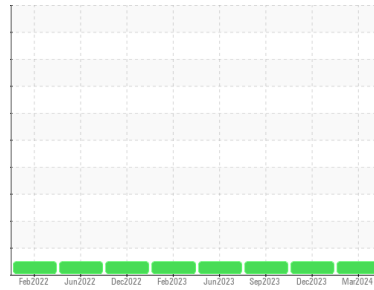




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**945020-260278**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0106923</b>	GFL0092099	GFL0084610	
Sample Date	Client Info	<b>27 Mar 2024</b>	26 Dec 2023	20 Sep 2023	
Machine Age	hrs	Client Info	<b>33526</b>	32919	32350
Oil Age	hrs	Client Info	<b>600</b>	600	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>10</b>	5	4
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m >30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>21</b>	23	8
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>52</b>	50	37
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 560	<b>599</b>	567	476
Calcium	ppm	ASTM D5185m 1510	<b>1680</b>	1617	1205
Phosphorus	ppm	ASTM D5185m 780	<b>770</b>	781	708
Zinc	ppm	ASTM D5185m 870	<b>992</b>	973	890
Sulfur	ppm	ASTM D5185m 2040	<b>2953</b>	2458	2559

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>5</b>	4	2
Sodium	ppm	ASTM D5185m	<b>5</b>	4	6
Potassium	ppm	ASTM D5185m >20	<b>0</b>	1	1

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.2</b>	8.4	6.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	19.7	16.3

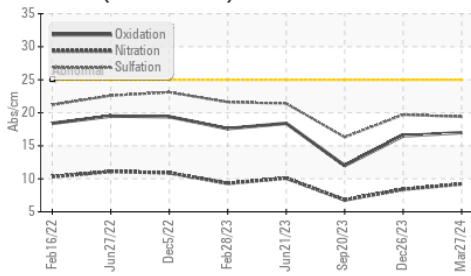
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.0</b>	16.5	12.0
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>7.0</b>	7.3	4.7

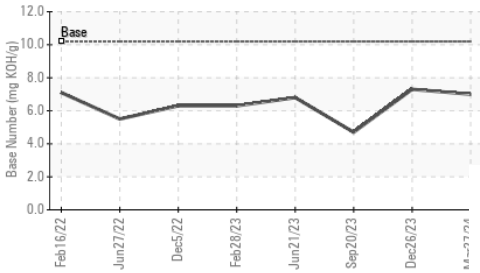


# OIL ANALYSIS REPORT

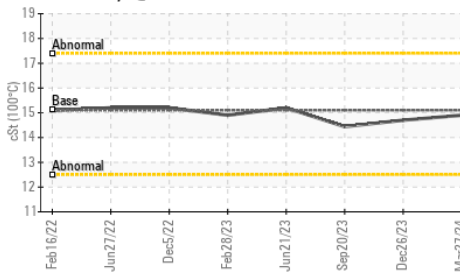
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



## VISUAL

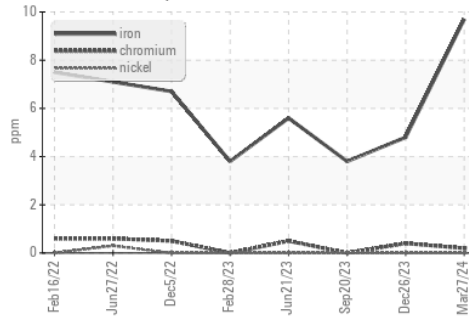
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

## FLUID PROPERTIES

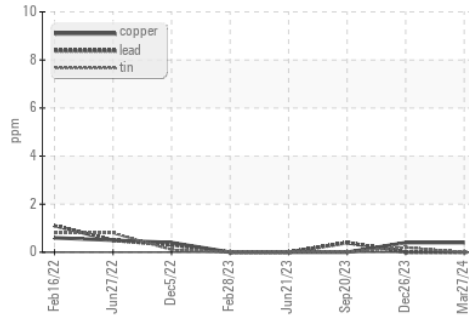
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.9	14.7

## GRAPHS

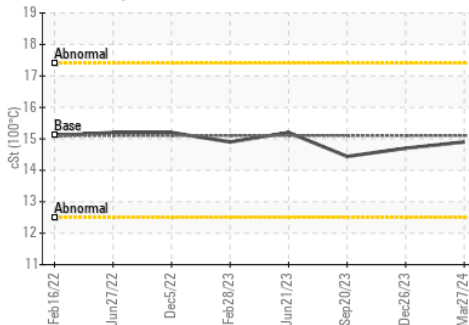
Ferrous Alloys



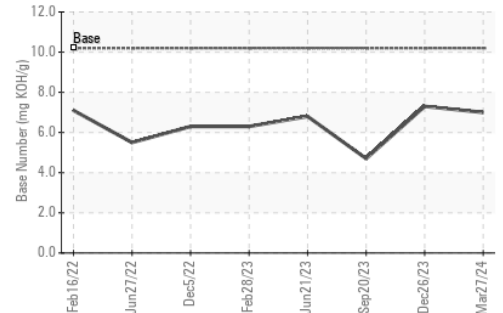
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106923  
**Lab Number** : 06138404  
**Unique Number** : 10963212  
**Test Package** : FLEET

**Received** : 04 Apr 2024  
**Tested** : 05 Apr 2024  
**Diagnosed** : 05 Apr 2024 - Wes Davis

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083

Contact: Apolinar Zacarias  
 pzacariascano@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)

T:  
F: