

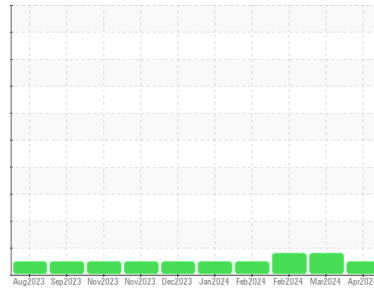


# OIL ANALYSIS REPORT



Machine Id  
**934024**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 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>GFL0117200</b>	GFL0114020	GFL0109795
Sample Date	Client Info		<b>02 Apr 2024</b>	12 Mar 2024	27 Feb 2024
Machine Age	hrs	Client Info	<b>1337</b>	1188	1099
Oil Age	hrs	Client Info	<b>0</b>	1188	0
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	ABNORMAL

## 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>8</b>	▲ 53	▲ 54
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m >4	<b>1</b>	<1	2
Titanium	ppm	ASTM D5185m >5	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >25	<b>3</b>	7	6
Lead	ppm	ASTM D5185m >40	<b>1</b>	1	3
Copper	ppm	ASTM D5185m >150	<b>&lt;1</b>	11	10
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	2	2
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>17</b>	8	12
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>52</b>	61	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	10	10
Magnesium	ppm	ASTM D5185m 560	<b>580</b>	721	895
Calcium	ppm	ASTM D5185m 1510	<b>1647</b>	1593	1933
Phosphorus	ppm	ASTM D5185m 780	<b>842</b>	800	920
Zinc	ppm	ASTM D5185m 870	<b>1035</b>	1035	1290
Sulfur	ppm	ASTM D5185m 2040	<b>3058</b>	2647	2929

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	18	19
Sodium	ppm	ASTM D5185m	<b>5</b>	5	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	6	6

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.0</b>	13.0	12.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.7</b>	25.5	23.7

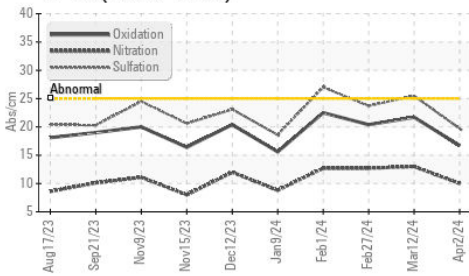
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.7</b>	21.7	20.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>6.4</b>	3.2	6.6

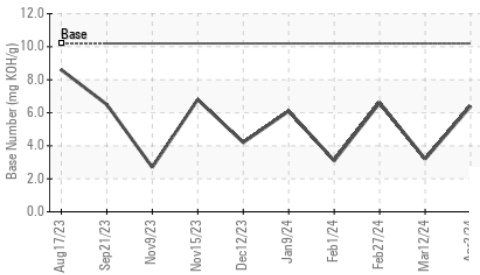


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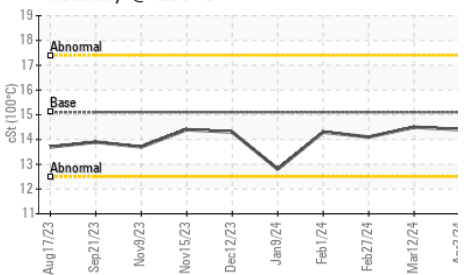
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

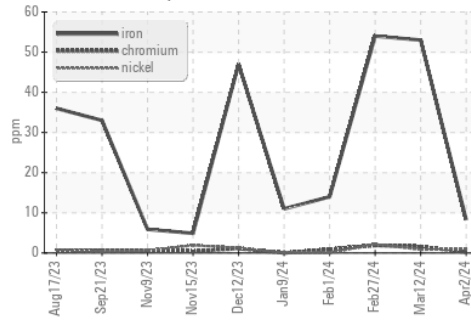


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

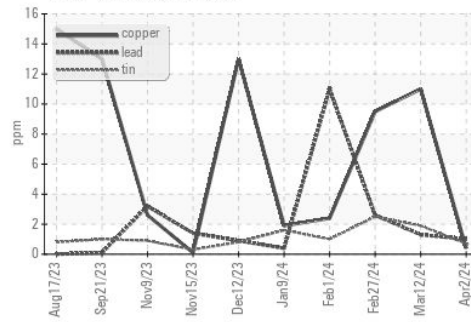
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.5

## GRAPHS

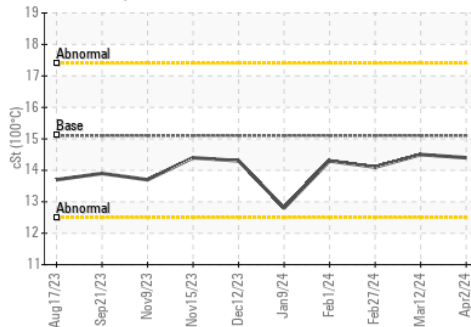
Ferrous Alloys



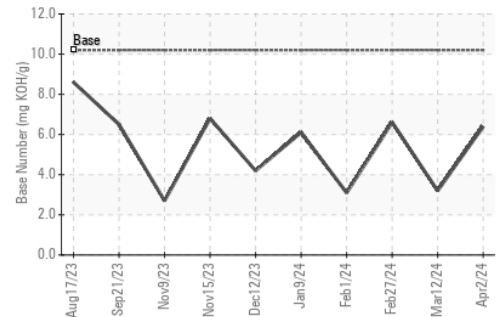
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0117200  
**Lab Number** : 06139559  
**Unique Number** : 10964367  
**Test Package** : FLEET

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@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)

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