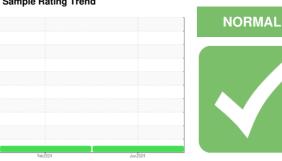


# **OIL ANALYSIS REPORT**

## Sample Rating Trend





Machine Id 833071 Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (24 LTR)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

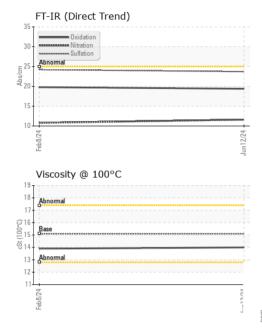
### **Fluid Condition**

The condition of the oil is acceptable for the time in service.

GEO LD 15W40 (	24 LTR)		Feb 2024	Jun 2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0094406	GFL0086783	
Sample Date		Client Info		12 Jun 2024	08 Feb 2024	
Machine Age	hrs	Client Info		1954	1283	
Oil Age	hrs	Client Info		1000	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	_S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>50	16	53	
Chromium	ppm	ASTM D5185(m)	>4	<1	1	
Nickel	ppm	ASTM D5185(m)	>2	<1	2	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	0	<1	
Aluminum	ppm	ASTM D5185(m)	>9	2	5	
_ead	ppm	ASTM D5185(m)	>30	0	2	
Copper	ppm	ASTM D5185(m)	>35	5	15	
Γin	ppm	ASTM D5185(m)	>4	<1	2	
Antimony	ppm	ASTM D5185(m)		0	0	
/anadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	8	7	
Barium	ppm	ASTM D5185(m)	5	<1	2	
Molybdenum	ppm	ASTM D5185(m)	50	58	91	
Manganese	ppm	ASTM D5185(m)	0	1	9	
Magnesium	ppm	ASTM D5185(m)	560	564	671	
Calcium	ppm	ASTM D5185(m)	1510	1552	1478	
Phosphorus	ppm	ASTM D5185(m)	780	672	733	
Zinc	ppm	ASTM D5185(m)	870	919	879	
Sulfur	ppm	ASTM D5185(m)	2040	1971	2200	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	5	23	
Sodium	ppm	ASTM D5185(m)		2	4	
Potassium	ppm	ASTM D5185(m)	>20	<1	2	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	11.6	10.8	
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.7	24.2	
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.4	19.8	



## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2			
White Metal	scalar	Visual*	NONE	NONE					
Yellow Metal	scalar	Visual*	NONE	NONE					
Precipitate	scalar	Visual*	NONE	NONE					
Silt	scalar	Visual*	NONE	NONE					
Debris	scalar	Visual*	NONE	NONE					
Sand/Dirt	scalar	Visual*	NONE	NONE					
Appearance	scalar	Visual*	NORML	NORML					
Odor	scalar	Visual*	NORML	NORML	NORML				
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG				
Free Water	scalar	Visual*		NEG	NEG				
FLUID PROPE	RTIES	method	limit/base	current	history1	history2			
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.0	13.9				
GRAPHS									
Iron (ppm)				Lead (ppm)					
Severe				Severe					
60 - Abnormal				40					
Abnormal			mdd	30 Abnormal		-			
20				20					
0				0					
Feb 8/24			Jun12/24	Feb8/24		Jun12/24			
			Ju			Jul			
20 T	Aluminum (ppm) Chromium (ppm)								
15 Severe				Severe					
10 - Abnormal				Abnormal					
5-				2					
0				0					
Feb 8/24			Jun12/24	Feb8/24		Jun12/24			
			nn P			Jun			
Copper (ppm)			2	Silicon (ppm)					
Severe 60			1	50					
40 - Abnormal			<u>E</u> 1	Abnormal					
20				50 -					
				0					
eb8/24			2/24	-eb8/24		2/24			
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CALA ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. **Lab Number** : 02641672 Unique Number : 5799211

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

mdd

: GFL0094406

Received **Tested** Diagnosed

: 13 Jun 2024 : 13 Jun 2024

: 13 Jun 2024 - Wes Davis

Additives

> GFL Environmental - 222 - Sandhill SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD ORANGEVILLE, ON CA L9W 3X5 Contact: GLENN COOK

gcook@gflenv.com T: (519)940-4167

Test Package : MOB 1 ( Additional Tests: Visual ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Viscosity @ 100°C