



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
731106
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117128	GFL0097779	GFL0085850
Sample Date		Client Info		24 May 2024	04 Jan 2024	08 Aug 2023
Machine Age	hrs	Client Info		7951	6798	5625
Oil Age	hrs	Client Info		1200	1200	1200
Filter Age	hrs	Client Info		1200	1200	1200
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	11	10	11
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	2	2	2
Lead	ppm	ASTM D5185(m)	>30	4	3	6
Copper	ppm	ASTM D5185(m)	>35	2	2	2
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

There is no indication of any contamination in the oil.

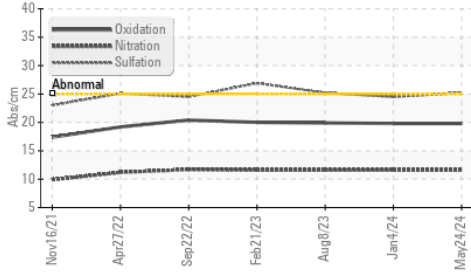
Silicon	ppm	ASTM D5185(m)	>+100	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.6	11.6	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.2	24.5	25.2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

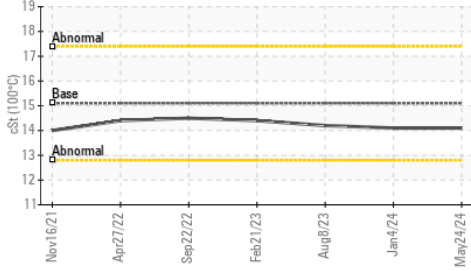
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		9	8	9
Boron	ppm	ASTM D5185(m)	50	6	7	8
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	55	55	57
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	560	641	567	582
Calcium	ppm	ASTM D5185(m)	1510	1575	1563	1578
Phosphorus	ppm	ASTM D5185(m)	780	711	674	726
Zinc	ppm	ASTM D5185(m)	870	978	918	927
Sulfur	ppm	ASTM D5185(m)	2040	2065	2199	2059
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.8	19.8	19.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.1	14.1	14.2

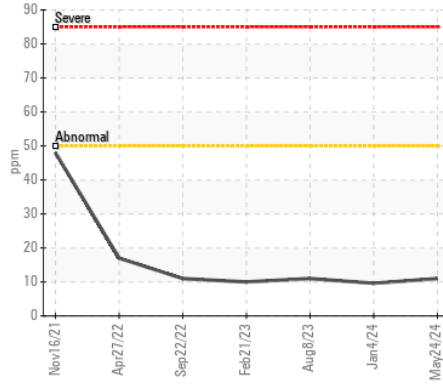
FT-IR (Direct Trend)



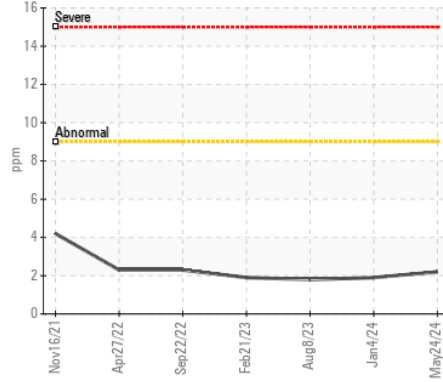
Viscosity @ 100°C



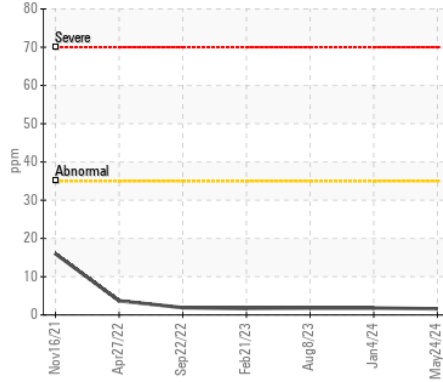
Iron (ppm)



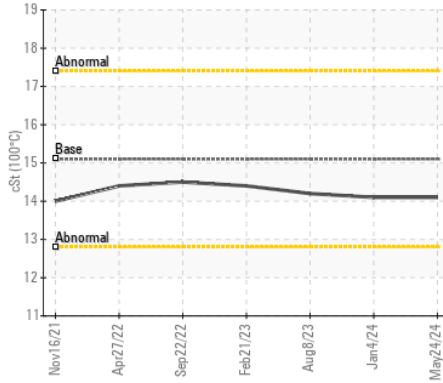
Aluminum (ppm)



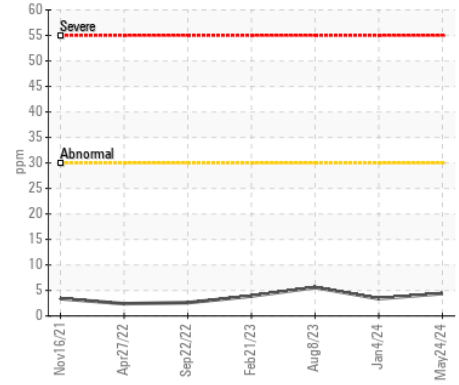
Copper (ppm)



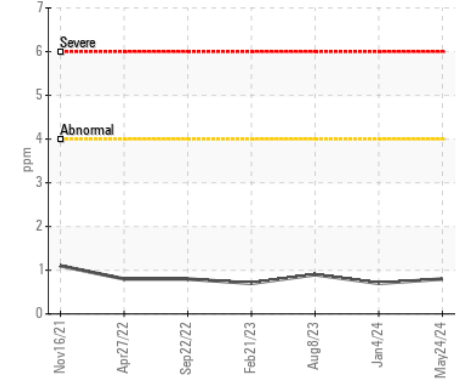
Viscosity @ 100°C



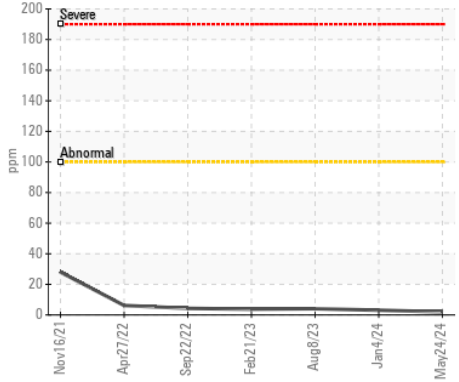
Lead (ppm)



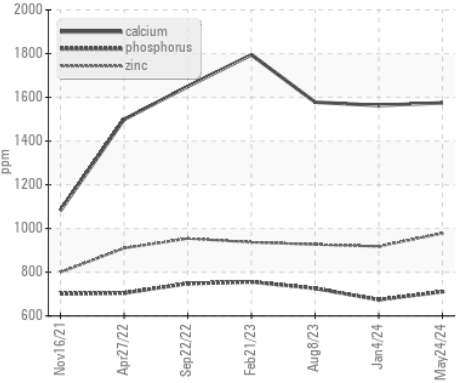
Chromium (ppm)



Silicon (ppm)



Additives



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117128
Lab Number : 02639069
Unique Number : 5788231
Test Package : MOB 1

Received : 31 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

GFL Environmental - 209 - Hamilton

560 Seaman Street
Stoney Creek, ON
CA L8E 3X7

Contact: Fred Carleton
fred.carleton@gflenv.com

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F: (905)664-9008

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.