



Machine Id
831043
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102610	GFL0057716	GFL0054189
Sample Date		Client Info		10 Feb 2024	11 Aug 2022	19 Jul 2022
Machine Age	hrs	Client Info		4646	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

Chromium and iron ppm levels are marginal. All other component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	▲ 34	8	20
Chromium	ppm	ASTM D5185(m)	>5	▲ 3	<1	1
Nickel	ppm	ASTM D5185(m)	>4	1	<1	<1
Titanium	ppm	ASTM D5185(m)	>5	0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	5	2	3
Lead	ppm	ASTM D5185(m)	>40	12	<1	1
Copper	ppm	ASTM D5185(m)	>150	3	<1	2
Tin	ppm	ASTM D5185(m)	>4	1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

There is no indication of any contamination in the oil.

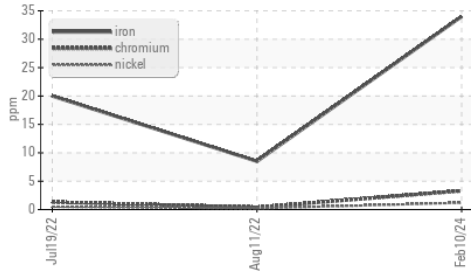
Silicon	ppm	ASTM D5185(m)	>25	5	5	6
Potassium	ppm	ASTM D5185(m)	>20	7	<1	8
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	14.2	8.4	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	29.9	20.3	24.0
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

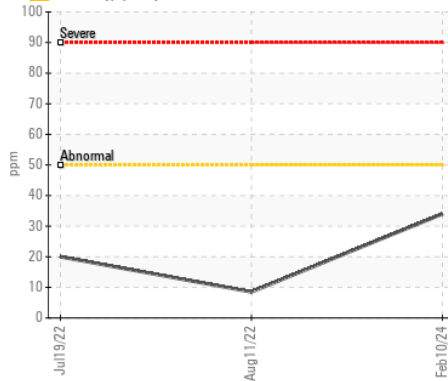
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		14	6	10
Boron	ppm	ASTM D5185(m)	50	7	20	8
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	60	50	51
Manganese	ppm	ASTM D5185(m)	0	<1	<1	1
Magnesium	ppm	ASTM D5185(m)	560	649	561	535
Calcium	ppm	ASTM D5185(m)	1510	1834	1557	1584
Phosphorus	ppm	ASTM D5185(m)	780	844	780	654
Zinc	ppm	ASTM D5185(m)	870	1029	886	886
Sulfur	ppm	ASTM D5185(m)	2040	2138	2098	1979
Oxidation	Abs/.1mm	ASTM D7414*	>25	28.0	16.8	19.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	15.4	14.7	14.8

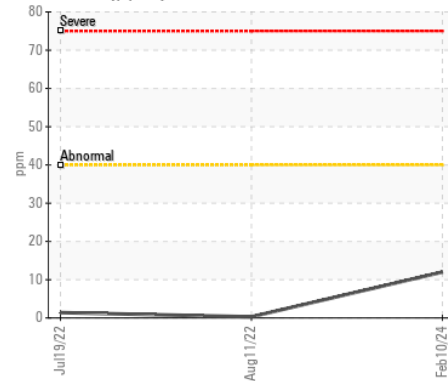
▲ Ferrous Alloys



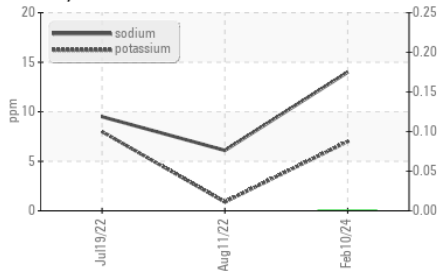
▲ Iron (ppm)



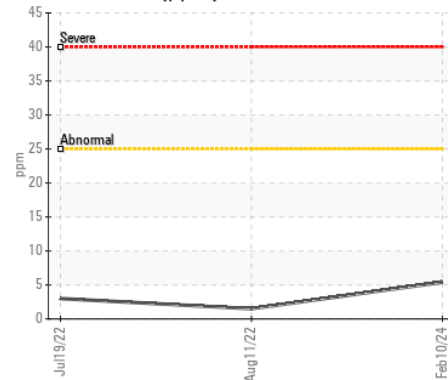
Lead (ppm)



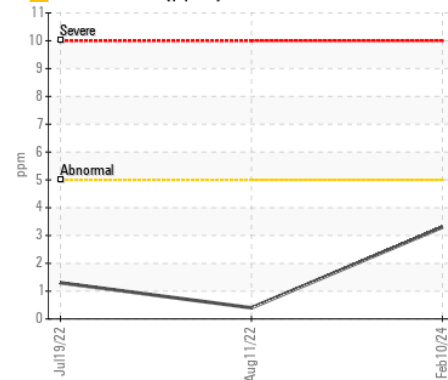
Glycol Contamination



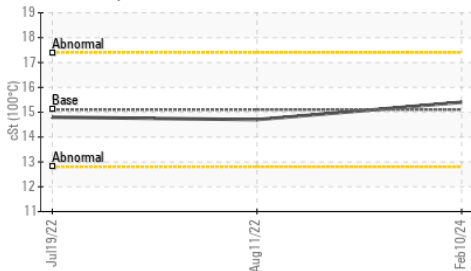
Aluminum (ppm)



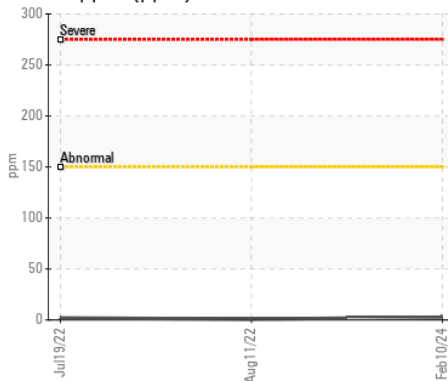
▲ Chromium (ppm)



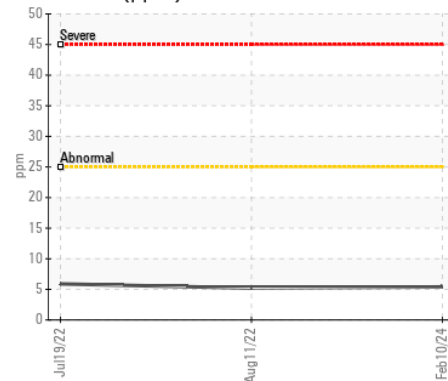
Viscosity @ 100°C



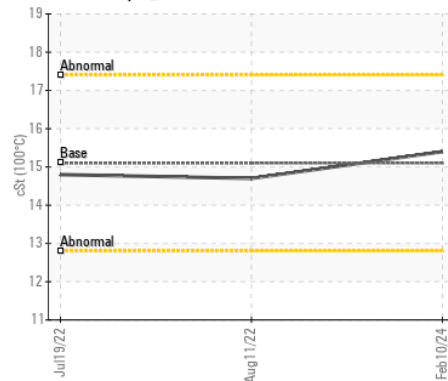
Copper (ppm)



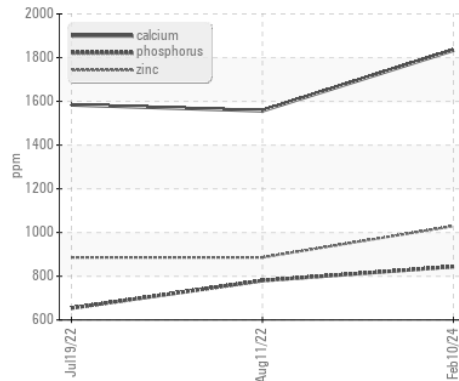
Silicon (ppm)



Viscosity @ 100°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102610
Lab Number : 02616538
Unique Number : 5733648
Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

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.