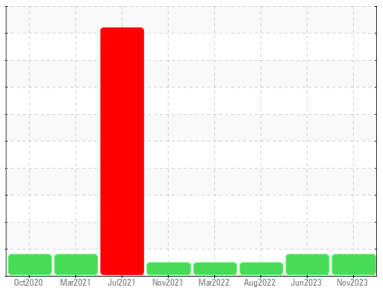
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
9122
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation
The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

▲ Wear
Chromium ppm levels are abnormal. Ring wear is indicated.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0094381**	GFL0086757	GFL0055436
Sample Date		Client Info		**30 Nov 2023**	15 Jun 2023	04 Aug 2022
Machine Age	hrs	Client Info		**19418**	18253	15911
Oil Age	hrs	Client Info		**600**	18253	15911
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	MARGINAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**28**	30	17
Chromium	ppm	ASTM D5185(m)	>4	▲ **5**	▲ 4	3
Nickel	ppm	ASTM D5185(m)	>2	**<1**	1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>9	**3**	3	3
Lead	ppm	ASTM D5185(m)	>30	**4**	6	12
Copper	ppm	ASTM D5185(m)	>35	**2**	2	1
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	**8**	6	10
Barium	ppm	ASTM D5185(m)	5	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	50	**59**	61	58
Manganese	ppm	ASTM D5185(m)	0	**<1**	1	<1
Magnesium	ppm	ASTM D5185(m)	560	**592**	617	628
Calcium	ppm	ASTM D5185(m)	1510	**1702**	1737	1777
Phosphorus	ppm	ASTM D5185(m)	780	**808**	872	819
Zinc	ppm	ASTM D5185(m)	870	**998**	983	1022
Sulfur	ppm	ASTM D5185(m)	2040	**2125**	2189	2192
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

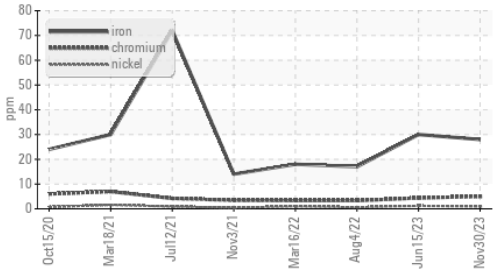
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**9**	14	4
Sodium	ppm	ASTM D5185(m)		**6**	8	5
Potassium	ppm	ASTM D5185(m)	>20	**<1**	1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**13.2**	12.8	12.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.7**	29.5	28.5

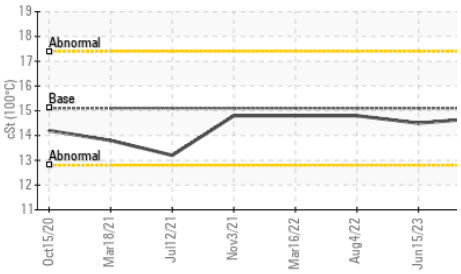
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.1**	24.0	24.6

OIL ANALYSIS REPORT

Ferrous Alloys



Viscosity @ 100°C

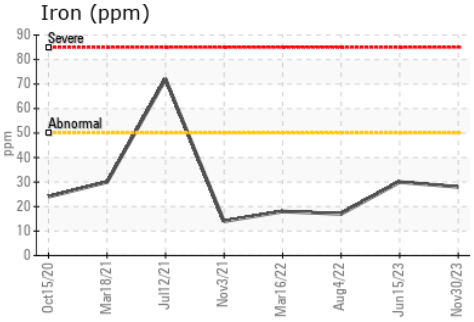


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

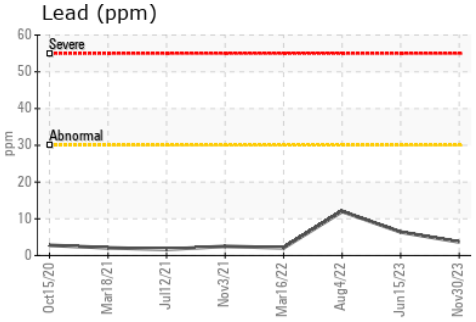
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	**14.7**	14.5	14.8

GRAPHS

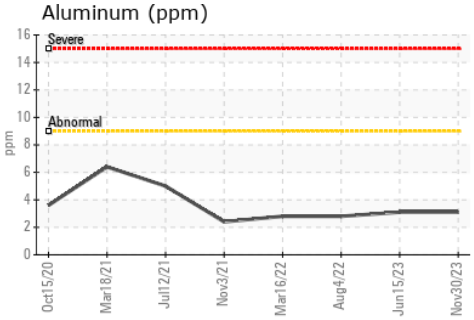
Iron (ppm)



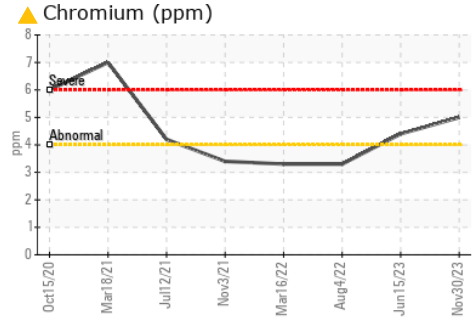
Lead (ppm)



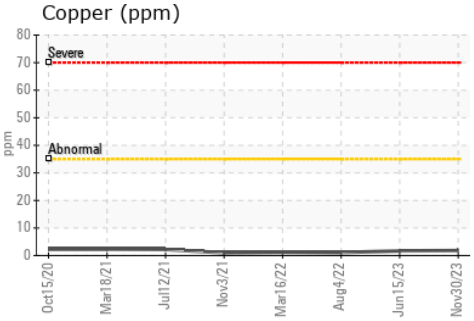
Aluminum (ppm)



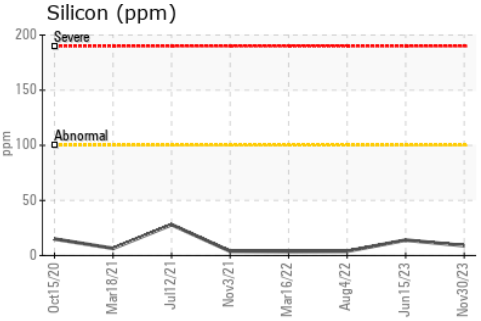
Chromium (ppm)



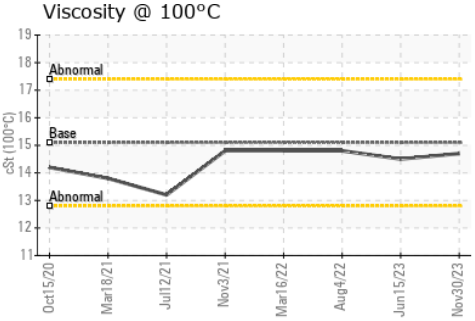
Copper (ppm)



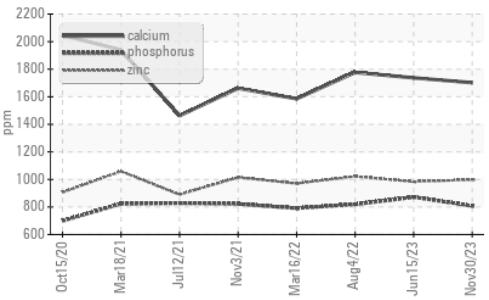
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: GFL0094381	**Received**	: 01 Dec 2023
Lab Number	: 02600027	**Diagnosed**	: 01 Dec 2023
Unique Number	: 5685107	**Diagnostician**	: Kevin Marson
Test Package	: MOB 1		

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.

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