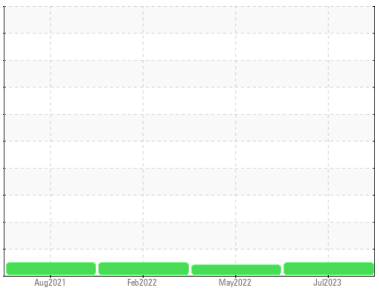
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
501032
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear
Metal levels are typical for a new component breaking in.

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

Fluid Condition
Additive levels indicate the addition of a different brand, or type of oil. 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	history 1	history 2
Sample Number		Client Info		**GFL0084265**	GFL0052674	GFL0044571
Sample Date		Client Info		**05 Jul 2023**	20 May 2022	02 Feb 2022
Machine Age	kms	Client Info		**13503**	25386	5161
Oil Age	kms	Client Info		**0**	24700	600
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**NORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	**<1.0**	0.5	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>100	**11**	30	21
Chromium	ppm	ASTM D5185(m)	>20	**<1**	5	1
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	**4**	5	5
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	0
Copper	ppm	ASTM D5185(m)	>330	**2**	6	3
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	0
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	history 1	history 2
Boron	ppm	ASTM D5185(m)	0	**296**	3	2
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**72**	60	58
Manganese	ppm	ASTM D5185(m)	0	**<1**	3	<1
Magnesium	ppm	ASTM D5185(m)	1010	**528**	1032	992
Calcium	ppm	ASTM D5185(m)	1070	**1342**	1055	1073
Phosphorus	ppm	ASTM D5185(m)	1150	**1091**	1075	1051
Zinc	ppm	ASTM D5185(m)	1270	**1181**	1239	1224
Sulfur	ppm	ASTM D5185(m)	2060	**2775**	2709	2639
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>25	**6**	6	5
Sodium	ppm	ASTM D5185(m)		**2**	5	6
Potassium	ppm	ASTM D5185(m)	>20	**4**	2	2

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7844*	>3	**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**5.5**	6.0	3.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.9**	20.0	14.0

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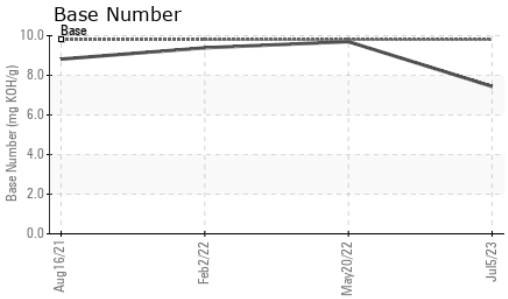
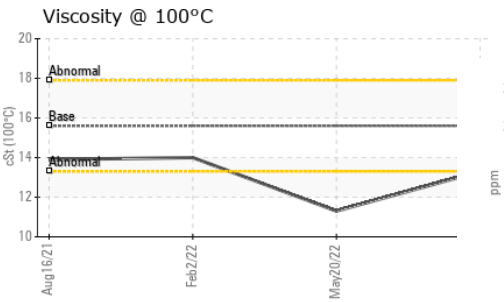


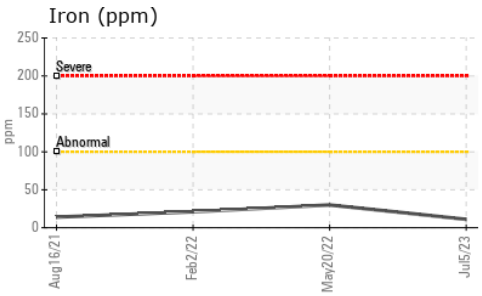


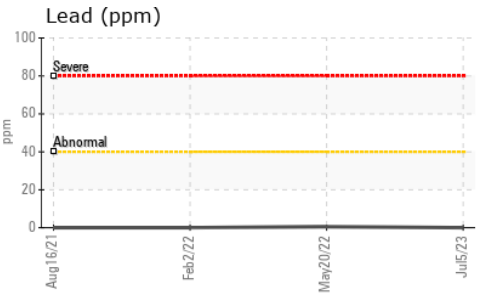
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.1**	13.8	7.0
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	**7.44**	9.70	9.39

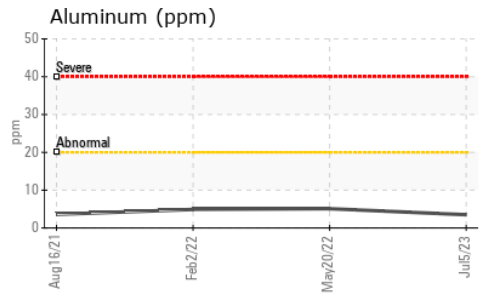
VISUAL		method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

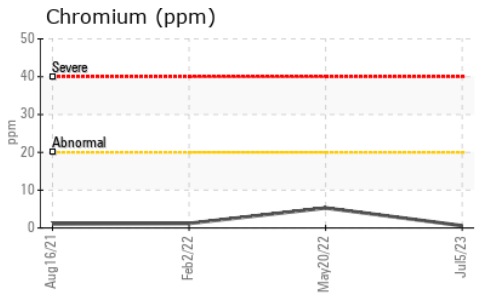
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	**13.3**	▲ 11.3	14.0

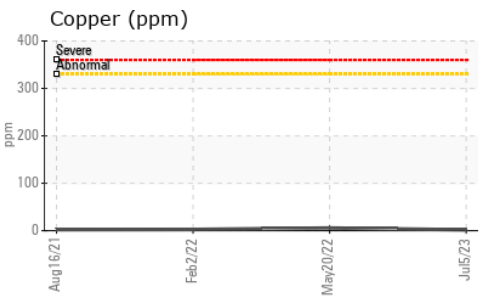
GRAPHS

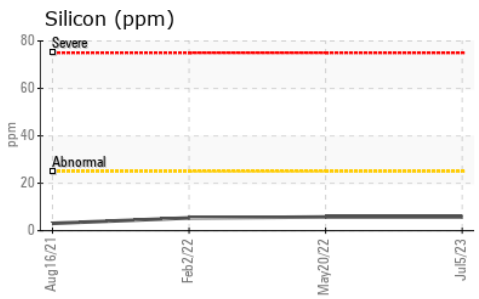


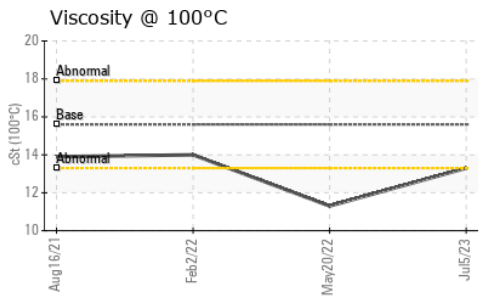


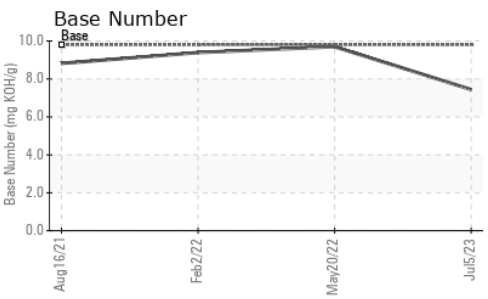












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0084265
Lab Number : 02568981
Unique Number : 5606027
Test Package : MOB 2

Received : 11 Jul 2023
Diagnosed : 11 Jul 2023
Diagnostician : Wes Davis

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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