



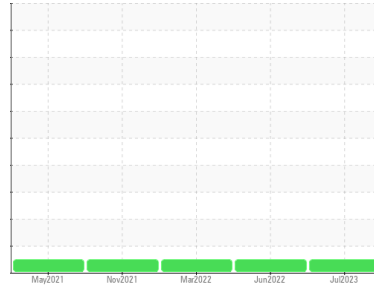
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
401157
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		GFL0077036	GFL0054638	GFL0024362
Sample Date	Client Info		05 Jul 2023	12 Jun 2022	04 Mar 2022
Machine Age	hrs	Client Info	10709	7924	7156
Oil Age	hrs	Client Info	0	600	0
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	0.0	0.0

WEAR METALS

	method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185(m)	>80	21	11	10
Chromium	ppm	ASTM D5185(m)	>5	1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	6	6	7
Lead	ppm	ASTM D5185(m)	>30	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>150	4	4	4
Tin	ppm	ASTM D5185(m)	>5	<1	<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	2	3	3
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	61	60	60
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	1005	981	1004
Calcium	ppm	ASTM D5185(m)	1070	1070	1092	1079
Phosphorus	ppm	ASTM D5185(m)	1150	1057	996	1046
Zinc	ppm	ASTM D5185(m)	1270	1217	1212	1251
Sulfur	ppm	ASTM D5185(m)	2060	2380	2410	2511
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185(m)	>20	4	4	4
Sodium	ppm	ASTM D5185(m)		2	2	2
Potassium	ppm	ASTM D5185(m)	>20	3	5	6

INFRA-RED

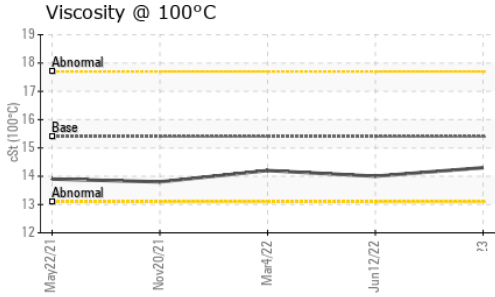
	method	limit/base	current	history 1	history 2	
Soot %	%	ASTM D7844*	>3	0.7	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	8.6	8.3	7.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	21.8	20.3

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.9	15.8	14.9



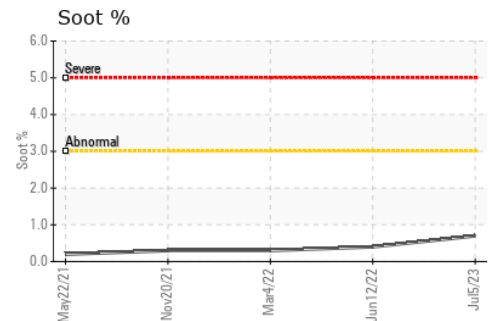
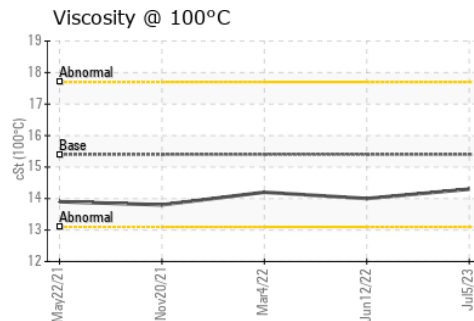
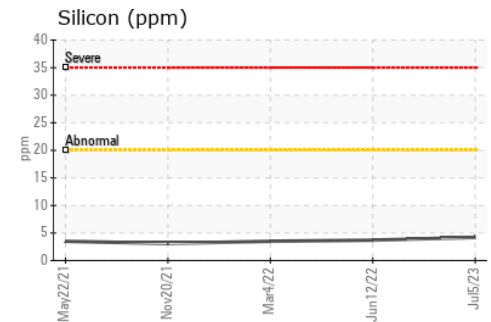
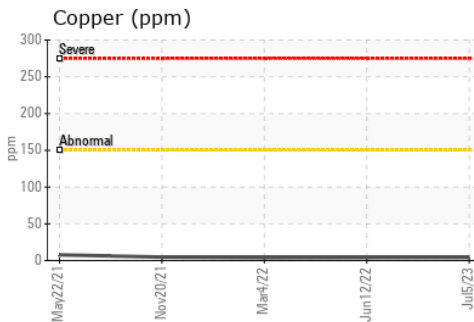
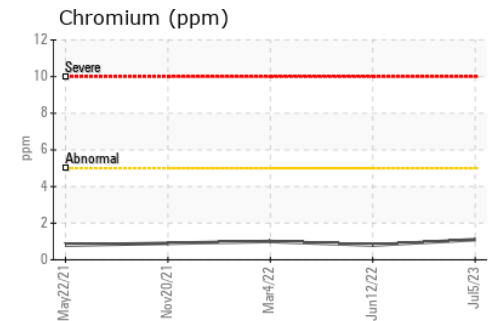
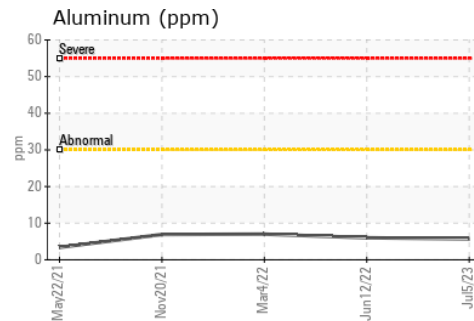
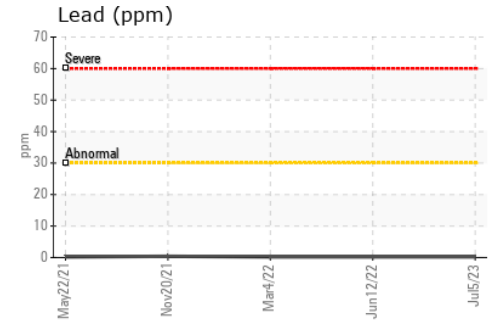
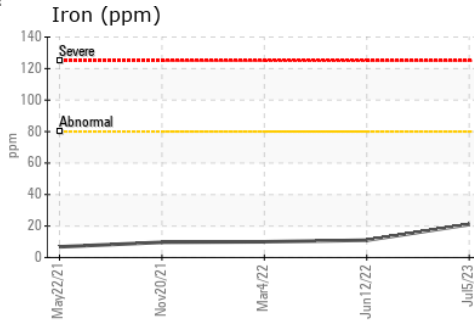
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.3	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling
Sample No. : GFL0077036 **Received** : 12 Jul 2023
Lab Number : 02569219 **Diagnosed** : 12 Jul 2023
Unique Number : 5606265 **Diagnostician** : Wes Davis
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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