

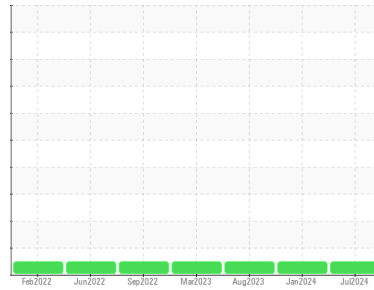


OIL ANALYSIS REPORT



Area
GFL2160 [1312285]
 Machine Id
401178
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (36 LTR)

Sample Rating Trend



NORMAL



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	history1	history2
Sample Number	Client Info		GFL0124699	GFL0099680	GFL0089254
Sample Date	Client Info		16 Jul 2024	03 Jan 2024	08 Aug 2023
Machine Age	hrs	Client Info	22677	659474	628875
Oil Age	hrs	Client Info	600	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	1	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	14	19	17
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	3	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	2	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Antimony	ppm	ASTM D5185(m)		<1	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	history1	history2	
Boron	ppm	ASTM D5185(m)	0	2	3	4
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	60	60
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	951	948	971
Calcium	ppm	ASTM D5185(m)	1070	1040	1039	1058
Phosphorus	ppm	ASTM D5185(m)	1150	968	946	1010
Zinc	ppm	ASTM D5185(m)	1270	1176	1170	1192
Sulfur	ppm	ASTM D5185(m)	2060	2059	2255	2204
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

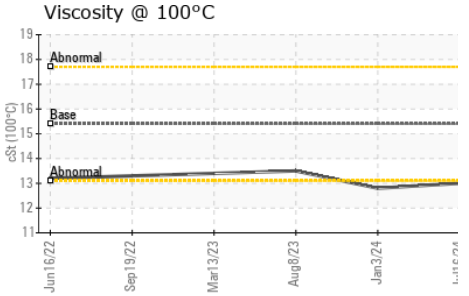
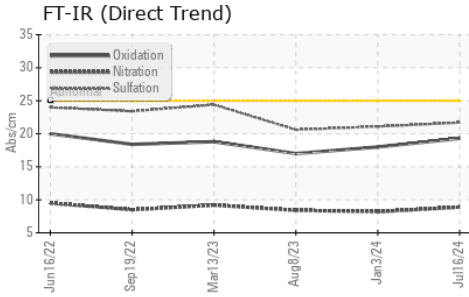
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	6	9	6
Sodium	ppm	ASTM D5185(m)		8	8	6
Potassium	ppm	ASTM D5185(m)	>20	<1	1	1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	8.9	8.2	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	21.1	20.6



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FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	19.3	18.0	17.0

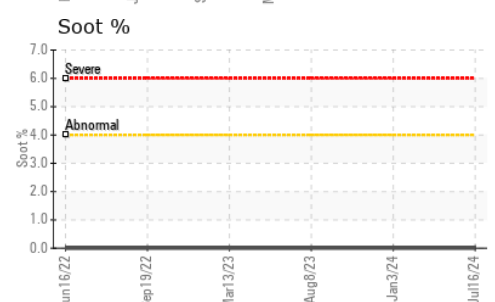
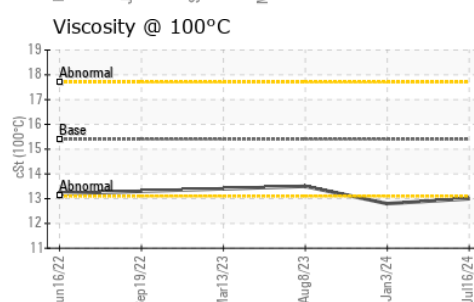
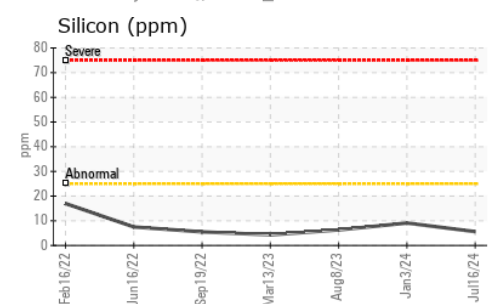
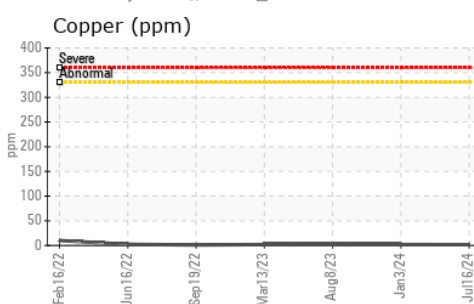
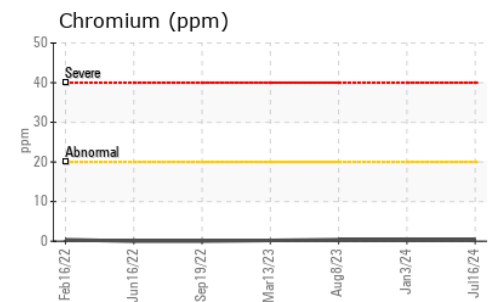
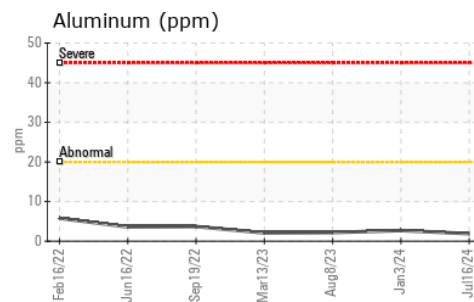
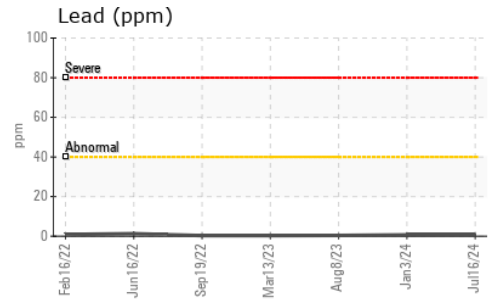
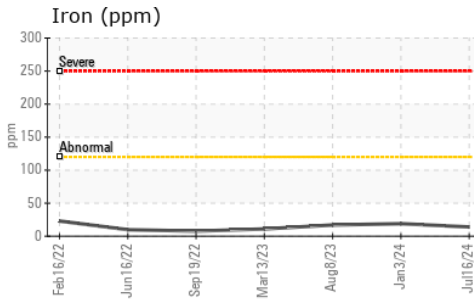
VISUAL

method	limit/base	current	history1	history2	
Emulsified Water	scalar Visual*	>0.2	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)	15.4	13.0	12.8	13.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0124699
Lab Number : 02648589
Unique Number : 5814141
Test Package : MOB 1

GFL Environmental - 207 - Pickering SW
 1034 TOY AVENUE, PICKERING YARD
 PICKERING, ON
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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.