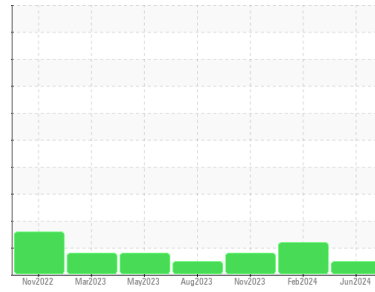




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
[1292103]

Machine Id
217009

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	history1	history2
Sample Number	Client Info		GFL0118544	GFL0110654	GFL0094539
Sample Date	Client Info		10 Jun 2024	15 Feb 2024	15 Nov 2023
Machine Age	hrs	Client Info	29436	28932	28316
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	ABNORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	▲ 2.8	▲ 3.1
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) >100	2	2	2
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >4	0	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >3	0	0	<1
Aluminum	ppm	ASTM D5185(m) >20	<1	2	1
Lead	ppm	ASTM D5185(m) >40	0	<1	<1
Copper	ppm	ASTM D5185(m) >330	<1	<1	<1
Tin	ppm	ASTM D5185(m) >15	0	0	0
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	history1	history2
Boron	ppm	ASTM D5185(m) 0	5	3	4
Barium	ppm	ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm	ASTM D5185(m) 60	56	55	52
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 1010	948	921	913
Calcium	ppm	ASTM D5185(m) 1070	1006	1051	998
Phosphorus	ppm	ASTM D5185(m) 1150	983	992	974
Zinc	ppm	ASTM D5185(m) 1270	1125	1134	1127
Sulfur	ppm	ASTM D5185(m) 2060	2542	2699	2490
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

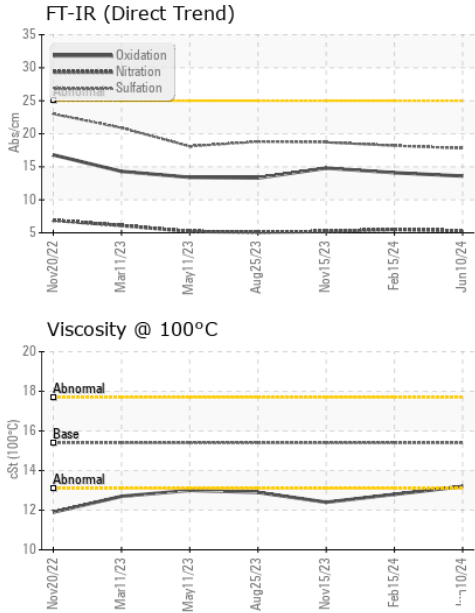
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	2	2	3
Sodium	ppm	ASTM D5185(m)	4	1	3
Potassium	ppm	ASTM D5185(m) >20	2	<1	0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	5.3	5.5	5.2
Sulfation	Abs./1mm	ASTM D7415* >30	17.8	18.2	18.7



OIL ANALYSIS REPORT

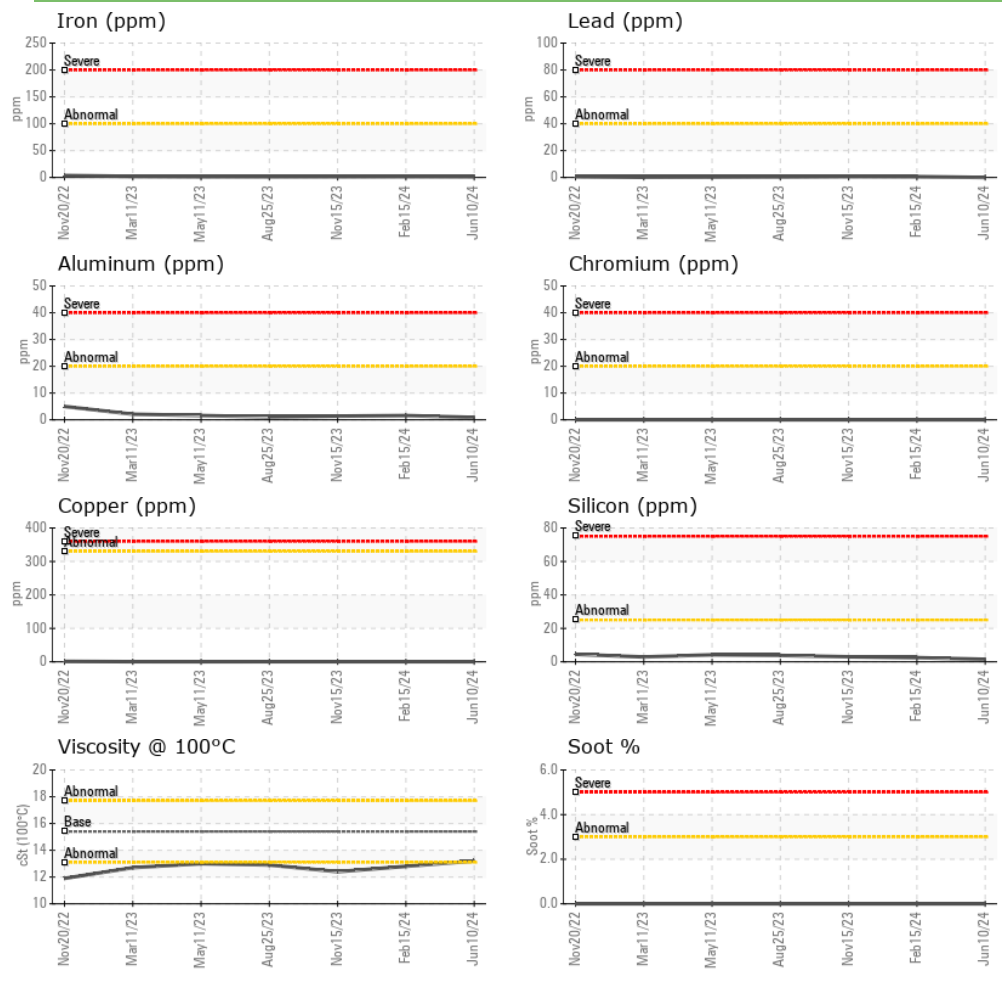


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	13.6	14.1	14.8

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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	13.2	▲ 12.8	12.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118544
Lab Number : 02641363
Unique Number : 5798902
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 207 - Pickering SW
 1034 TOY AVENUE, PICKERING YARD
 PICKERING, ON
 CA L1W 3P1
 Contact: Ian Patton
 ipatton@gflenv.com
 T: (905)831-6297
 F: (905)426-3577

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.