



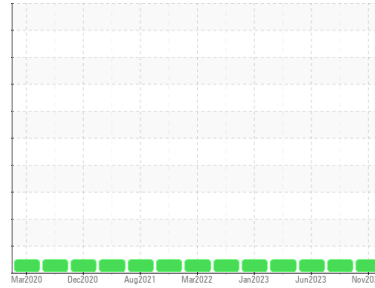
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
OR564
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		GFL0092244	GFL0087403	GFL0087381
Sample Date	Client Info		15 Nov 2023	22 Aug 2023	19 Jun 2023
Machine Age	hrs	Client Info	19711	19195	18697
Oil Age	hrs	Client Info	500	500	559
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<1.0	<1.0	<1.0
Water	WC Method	>0.21	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>51	25	18	25
Chromium	ppm	ASTM D5185(m)	>11	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>31	1	1	1
Lead	ppm	ASTM D5185(m)	>26	1	<1	<1
Copper	ppm	ASTM D5185(m)	>26	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<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)	0	4	4	3
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	57	57
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	957	928	924
Calcium	ppm	ASTM D5185(m)	1070	1096	1052	1054
Phosphorus	ppm	ASTM D5185(m)	1150	1027	1034	1038
Zinc	ppm	ASTM D5185(m)	1270	1193	1164	1153
Sulfur	ppm	ASTM D5185(m)	2060	2567	2548	2520
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

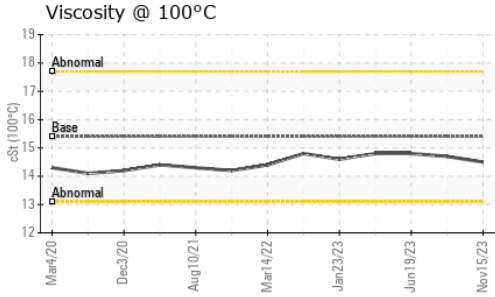
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>22	3	3	3
Sodium	ppm	ASTM D5185(m)	>31	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	1	1.1	1.3
Nitration	Abs/cm	ASTM D7624*	>20	6.2	6.5	6.7
Sulfation	Abs./1mm	ASTM D7415*	>30	18.3	20.4	19.3



OIL ANALYSIS REPORT

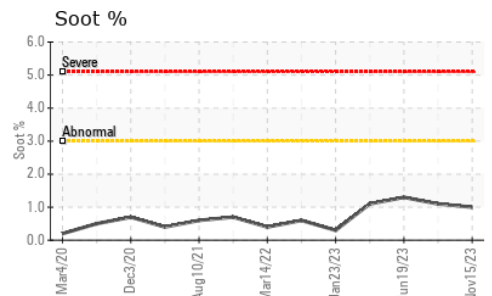
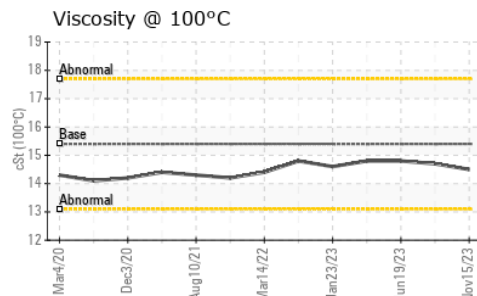
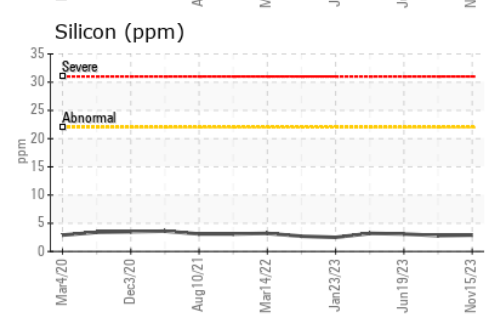
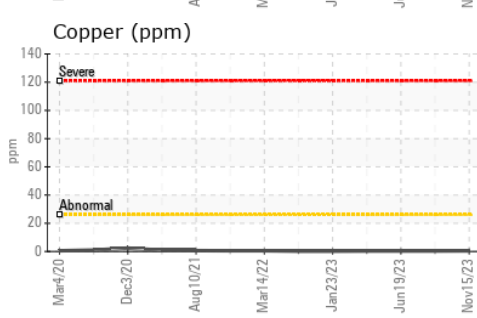
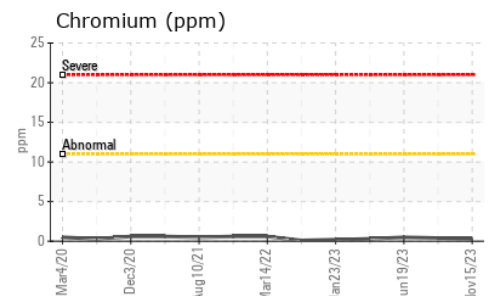
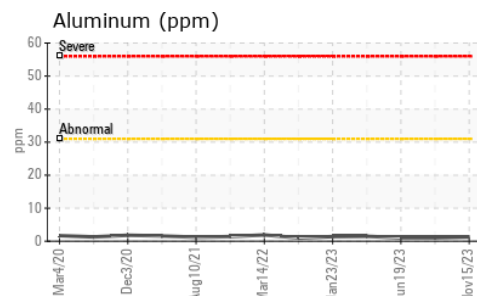
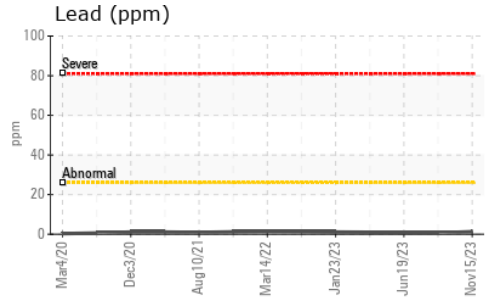
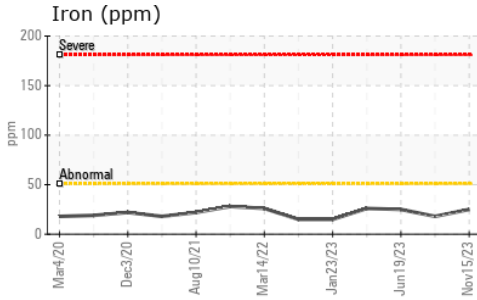


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	12.0	12.9	12.9

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.21	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	14.5	14.7	14.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill
Sample No. : GFL0092244 **Received** : 20 Nov 2023 17125 Lafleche Road,
Lab Number : 02597396 **Diagnosed** : 20 Nov 2023 Moose Creek, ON
Unique Number : 5682476 **Diagnostician** : Kevin Marson CA K0C 1W0
Test Package : MOB 1 Contact: Charles Bergeron

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.