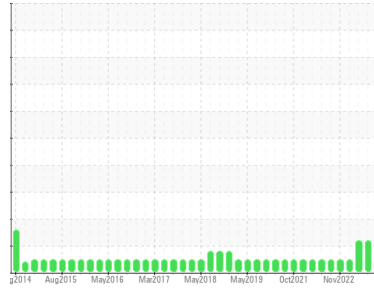




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
4479
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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		GFL0113282	GFL0097541	GFL0088934
Sample Date	Client Info		28 Feb 2024	05 Dec 2023	20 Aug 2023
Machine Age	hrs	Client Info	0	43775	0
Oil Age	hrs	Client Info	0	724	0
Oil Changed	Client Info		N/A	Changed	N/A
Sample Status			NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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	10	18	18
Chromium	ppm	ASTM D5185(m) >20	0	<1	<1
Nickel	ppm	ASTM D5185(m) >5	0	<1	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	<1	0
Aluminum	ppm	ASTM D5185(m) >20	1	1	<1
Lead	ppm	ASTM D5185(m) >40	<1	2	2
Copper	ppm	ASTM D5185(m) >330	2	2	3
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	4	6	4
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	57	57	58
Manganese	ppm	ASTM D5185(m) 0	0	0	<1
Magnesium	ppm	ASTM D5185(m) 1010	924	901	930
Calcium	ppm	ASTM D5185(m) 1070	1020	1001	998
Phosphorus	ppm	ASTM D5185(m) 1150	958	926	1015
Zinc	ppm	ASTM D5185(m) 1270	1114	1115	1123
Sulfur	ppm	ASTM D5185(m) 2060	2584	2380	2465
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

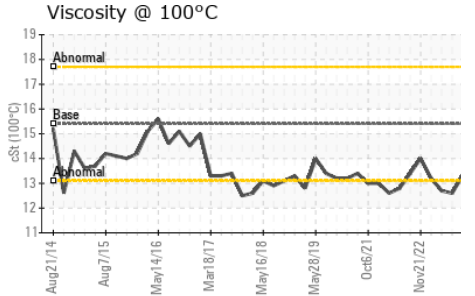
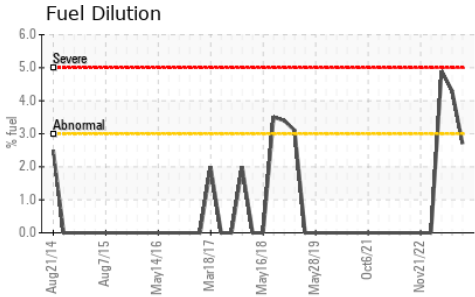
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	2	5
Sodium	ppm	ASTM D5185(m)	<1	2	1
Potassium	ppm	ASTM D5185(m) >20	<1	0	0
Fuel	%	ASTM D7593* >3.0	2.7	▲ 4.3	▲ 4.9

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.5	1.1	1
Nitration	Abs/cm	ASTM D7624* >20	5.7	7.1	6.9
Sulfation	Abs./1mm	ASTM D7415* >30	18.6	19.9	20.0



OIL ANALYSIS REPORT

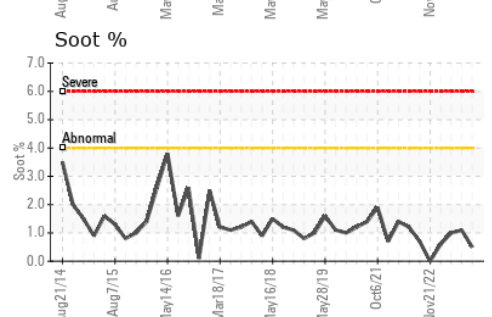
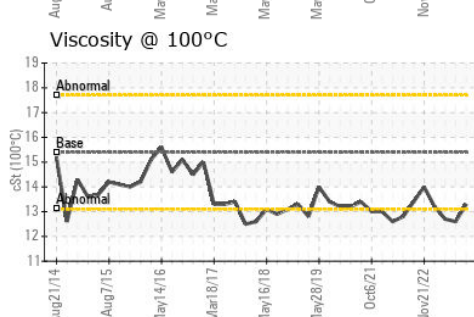
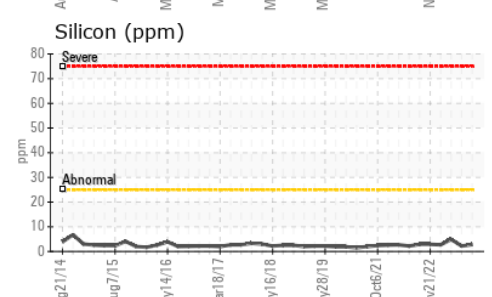
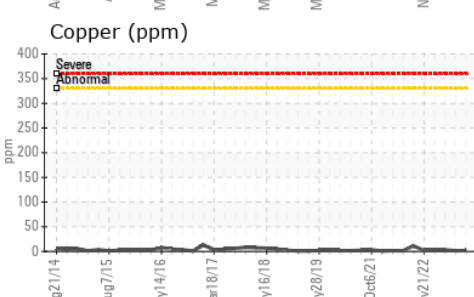
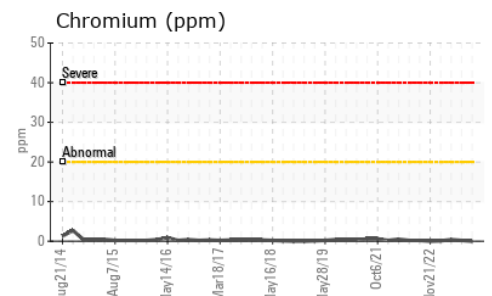
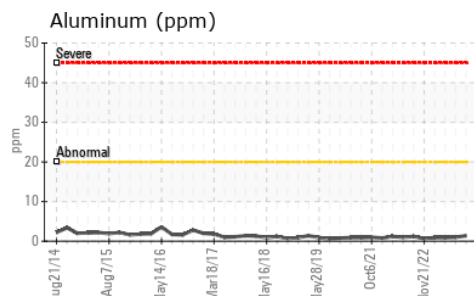
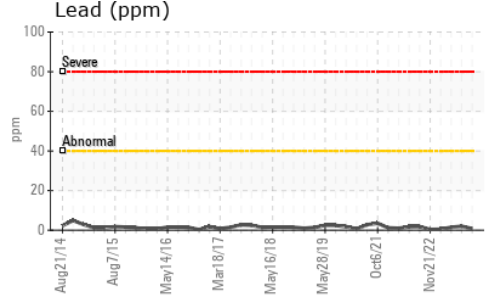
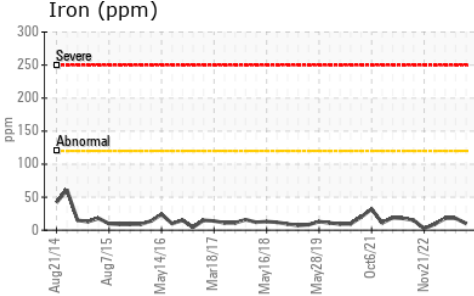


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.3	13.8	12.8

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	13.3	▲ 12.6	▲ 12.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113282 **Received** : 29 Feb 2024
Lab Number : 02618823 **Tested** : 01 Mar 2024
Unique Number : 5735933 **Diagnosed** : 01 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 216
 15 Bermondsey Road
 Toronto, ON
 CA M4B 1Y9
 Contact: Tom Hatzioannidis
 thatzioannidis@gflenv.com
 T: (416)678-9340
 F:

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.