



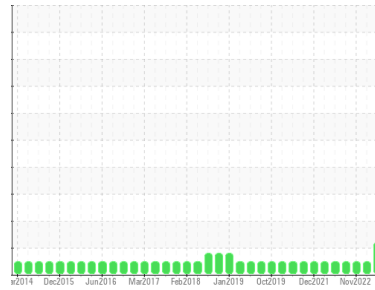
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



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



DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0088934	GFL0074262	GFL0061084
Sample Date	Client Info	20 Aug 2023	16 Mar 2023	21 Nov 2022
Machine Age	hrs	0	42291	40890
Oil Age	hrs	0	1411	10
Oil Changed	Client Info	N/A	Changed	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >120	18	9	3
Chromium	ppm ASTM D5185(m) >20	<1	<1	0
Nickel	ppm ASTM D5185(m) >5	<1	0	0
Titanium	ppm ASTM D5185(m) >2	0	0	0
Silver	ppm ASTM D5185(m) >2	0	0	0
Aluminum	ppm ASTM D5185(m) >20	<1	<1	<1
Lead	ppm ASTM D5185(m) >40	2	<1	<1
Copper	ppm ASTM D5185(m) >330	3	2	2
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	5	6
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 60	58	56	57
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	930	915	931
Calcium	ppm ASTM D5185(m) 1070	998	1017	1020
Phosphorus	ppm ASTM D5185(m) 1150	1015	1038	1053
Zinc	ppm ASTM D5185(m) 1270	1123	1100	1133
Sulfur	ppm ASTM D5185(m) 2060	2465	2538	2629
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	5	3	3
Sodium	ppm ASTM D5185(m)	1	1	2
Potassium	ppm ASTM D5185(m) >20	0	<1	0
Fuel	% ASTM D7593* >3.0	▲ 4.9	<1.0	<1.0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	1	0.6	0
Nitration	Abs/cm ASTM D7624* >20	6.9	6.5	4.9
Sulfation	Abs/.1mm ASTM D7415* >30	20.0	21.6	18.9

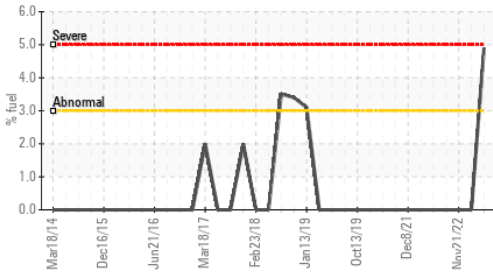
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	12.8	13.6	13.7

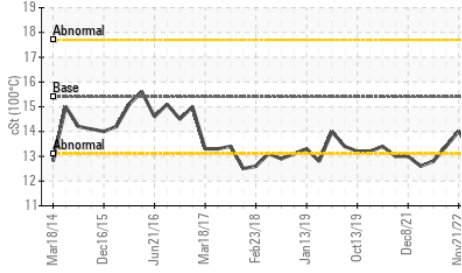


OIL ANALYSIS REPORT

▲ Fuel Dilution



▲ Viscosity @ 100°C

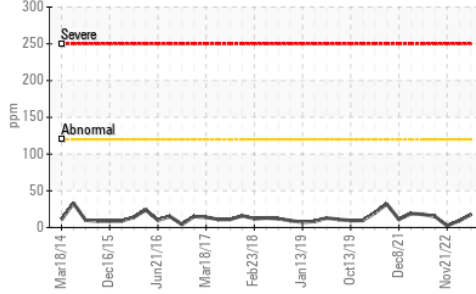


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

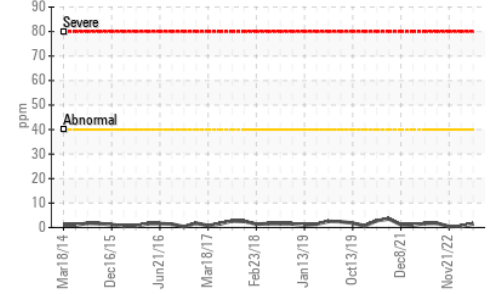
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.7	13.2

GRAPHS

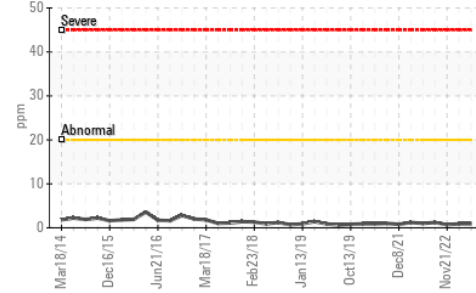
Iron (ppm)



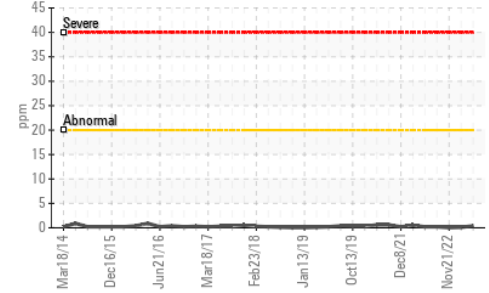
Lead (ppm)



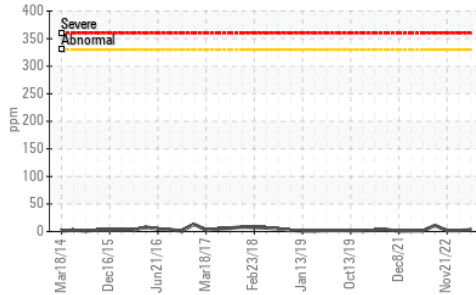
Aluminum (ppm)



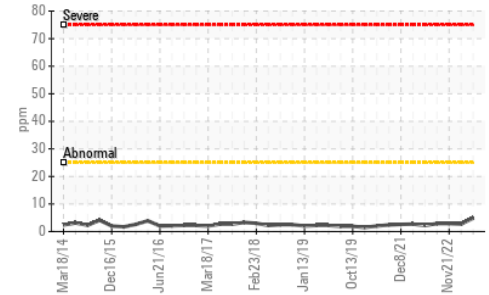
Chromium (ppm)



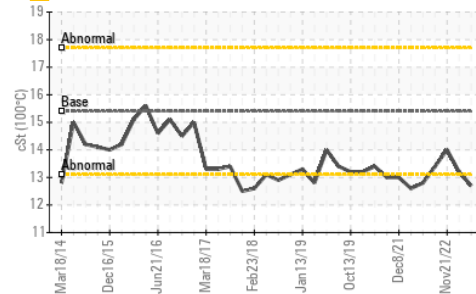
Copper (ppm)



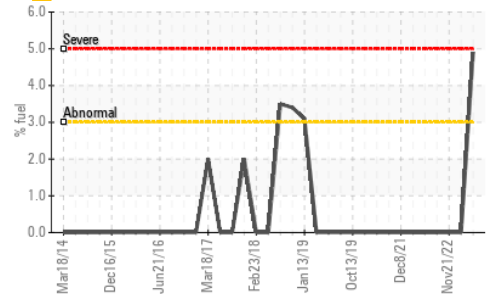
Silicon (ppm)



▲ Viscosity @ 100°C



▲ Fuel Dilution



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0088934 **Received** : 21 Aug 2023
Lab Number : **02577092** **Diagnosed** : 22 Aug 2023
Unique Number : 5630152 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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.