



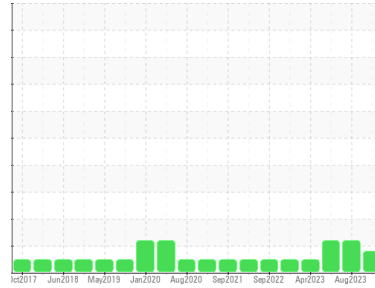
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
701027
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (22 LTR)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. 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

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0094198	GFL0091068	GFL0086492
Sample Date	Client Info	13 Oct 2023	23 Aug 2023	14 Jul 2023
Machine Age	kms Client Info	186902	186902	10267
Oil Age	kms Client Info	0	0	0
Oil Changed	Client Info	Changed	Not Changd	Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	27	12	19
Chromium	ppm ASTM D5185(m) >5	<1	<1	<1
Nickel	ppm ASTM D5185(m) >2	<1	0	0
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	<1	0	<1
Aluminum	ppm ASTM D5185(m) >30	4	2	3
Lead	ppm ASTM D5185(m) >30	0	0	0
Copper	ppm ASTM D5185(m) >150	<1	<1	<1
Tin	ppm ASTM D5185(m) >5	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	6	7	10
Barium	ppm ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm ASTM D5185(m) 60	57	56	58
Manganese	ppm ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	866	897	899
Calcium	ppm ASTM D5185(m) 1070	976	996	1005
Phosphorus	ppm ASTM D5185(m) 1150	872	998	993
Zinc	ppm ASTM D5185(m) 1270	1077	1119	1153
Sulfur	ppm ASTM D5185(m) 2060	2203	2411	2307
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	6	5	7
Sodium	ppm ASTM D5185(m)	18	11	21
Potassium	ppm ASTM D5185(m) >20	7	4	7
Fuel	% ASTM D7593* >5	▲ 6.6	▲ 5.5	▲ 6.5
Glycol	% ASTM D7922*	0.0	NEG	0.0

INFRA-RED

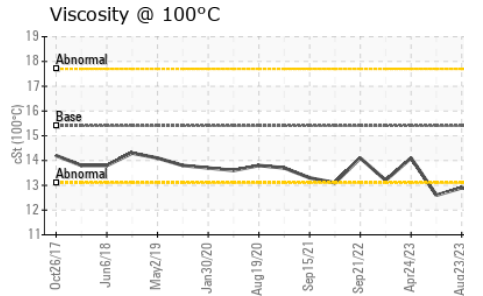
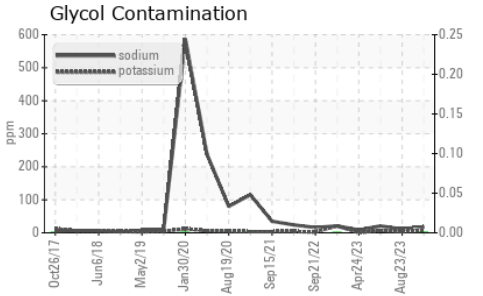
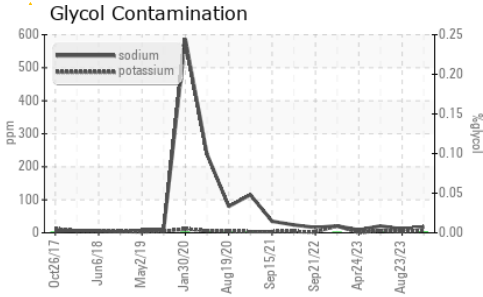
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.3	0.2	0.3
Nitration	Abs/cm ASTM D7624* >20	13.0	10.3	10.9
Sulfation	Abs/.1mm ASTM D7415* >30	24.1	21.5	22.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	25.2	18.6	20.6



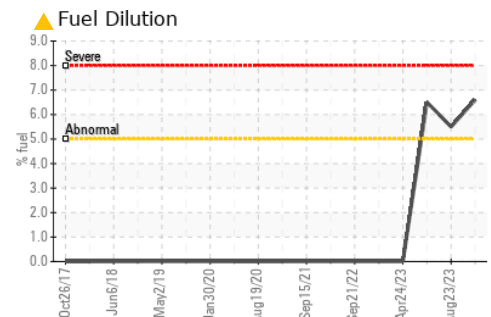
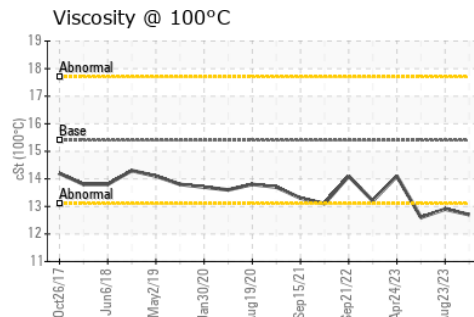
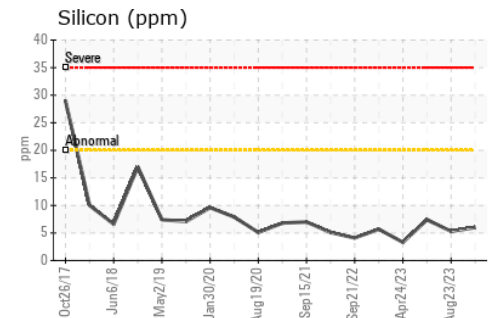
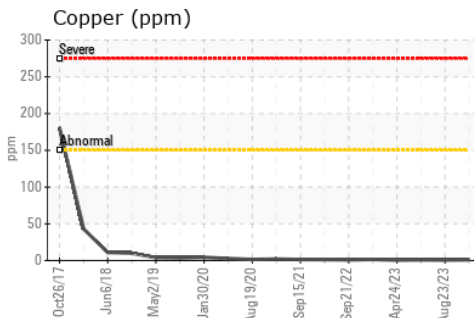
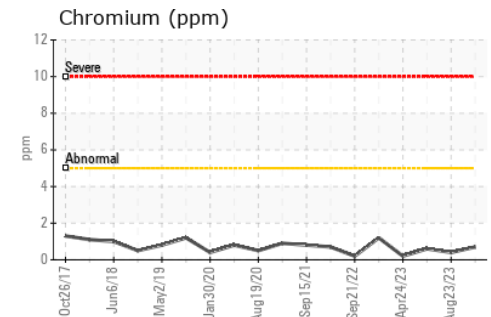
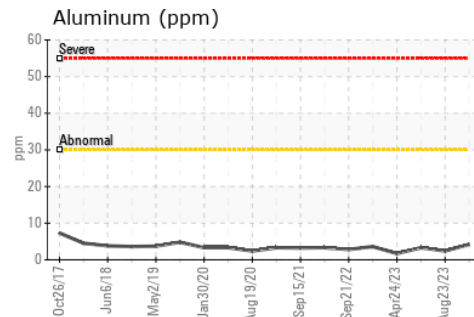
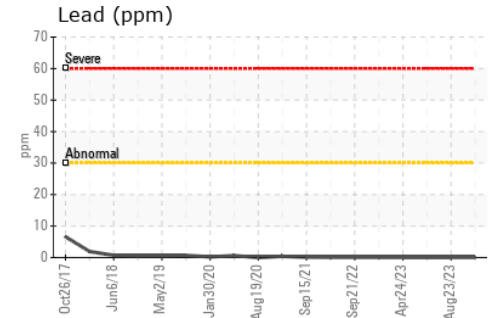
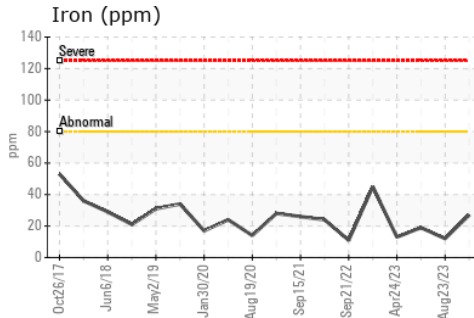
OIL ANALYSIS REPORT



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	▲ 12.9 ▲ 12.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094198 **Received** : 17 Oct 2023
Lab Number : 02589535 **Diagnosed** : 18 Oct 2023
Unique Number : 5658601 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, 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.