



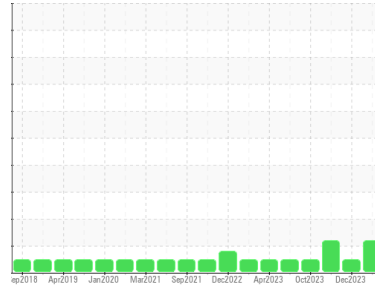
OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Machine Id
801036
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)



DIAGNOSIS

Recommendation

Check for low coolant level. 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

Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0111729	WC0875108	WC0875111
Sample Date	Client Info		29 Feb 2024	13 Dec 2023	05 Dec 2023
Machine Age	hrs	Client Info	11461	120211	10854
Oil Age	hrs	Client Info	0	120211	352
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			ATTENTION	NORMAL	ATTENTION

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	49	8	29
Chromium	ppm	ASTM D5185(m)	>5	1	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>30	4	2	4
Lead	ppm	ASTM D5185(m)	>30	<1	0	<1
Copper	ppm	ASTM D5185(m)	>150	2	<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	7	23	46
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	60	60	66
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	837	907	789
Calcium	ppm	ASTM D5185(m)	1070	1034	1025	1117
Phosphorus	ppm	ASTM D5185(m)	1150	808	977	940
Zinc	ppm	ASTM D5185(m)	1270	1080	1176	1166
Sulfur	ppm	ASTM D5185(m)	2060	2553	2608	2511
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	9	4	6
Sodium	ppm	ASTM D5185(m)		1012	137	517
Potassium	ppm	ASTM D5185(m)	>20	7	1	6
Glycol	%	ASTM D7922*		0.0	0.0	0.0

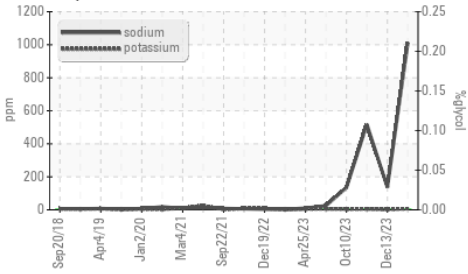
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.8	0.1	0.7
Nitration	Abs/cm	ASTM D7624*	>20	12.0	5.7	10.5
Sulfation	Abs./1mm	ASTM D7415*	>30	22.9	18.4	21.9

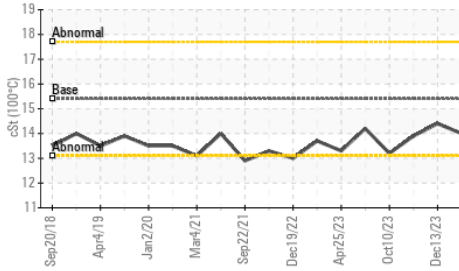


OIL ANALYSIS REPORT

Glycol Contamination



Viscosity @ 100°C



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/1mm ASTM D7414*	>25	19.1	13.5	17.2

VISUAL

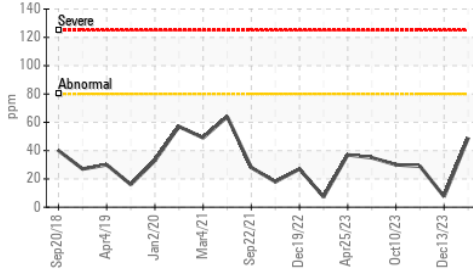
method	limit/base	current	history1	history2	
Emulsified Water	scalar Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar Visual*	NEG	NEG	NEG	

FLUID PROPERTIES

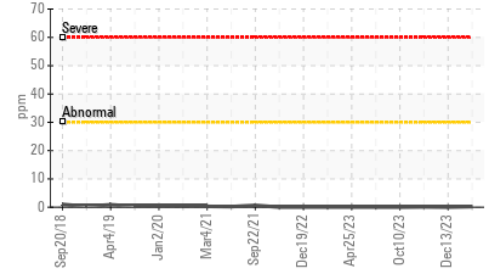
method	limit/base	current	history1	history2	
Visc @ 100°C	cSt ASTM D7279(m)	15.4	14.0	14.4	13.9

GRAPHS

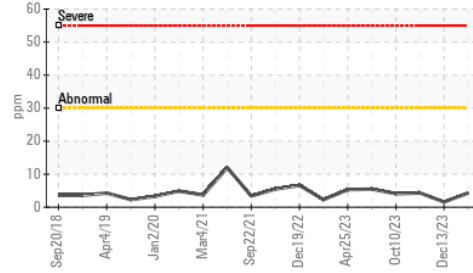
Iron (ppm)



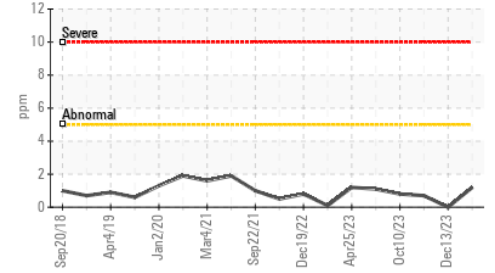
Lead (ppm)



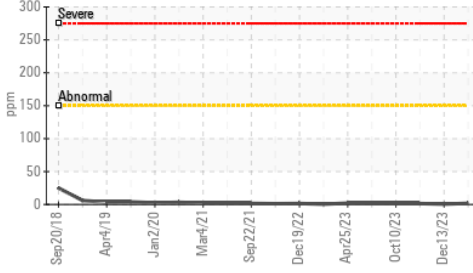
Aluminum (ppm)



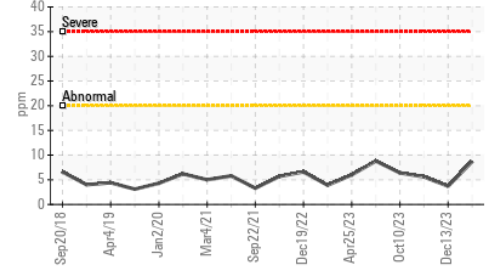
Chromium (ppm)



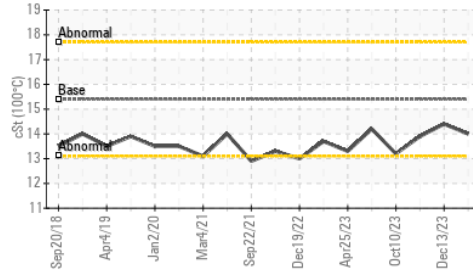
Copper (ppm)



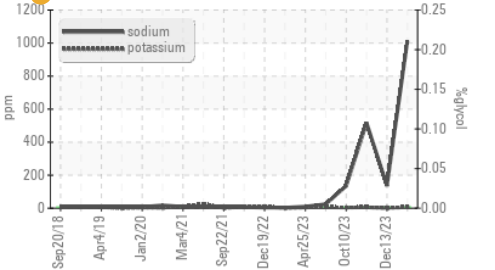
Silicon (ppm)



Viscosity @ 100°C



Glycol Contamination



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : GFL0111729 Received : 04 Mar 2024
 Lab Number : 02619483 Tested : 04 Mar 2024
 Unique Number : 5736593 Diagnosed : 05 Mar 2024 - Kevin Marson
 Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com

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.

T:
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