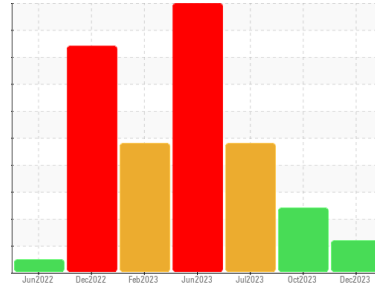




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
423050

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

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	GFL0099515	GFL0068056	GFL0068054
Sample Date	Client Info	21 Dec 2023	04 Oct 2023	06 Jul 2023
Machine Age	hrs	17843	17545	17122
Oil Age	hrs	298	17545	121
Oil Changed	Client Info	Changed	Changed	Not Changed
Sample Status		ATTENTION	ABNORMAL	ABNORMAL

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) >110	27	47	34
Chromium	ppm ASTM D5185(m) >4	<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) >2	0	<1	<1
Aluminum	ppm ASTM D5185(m) >25	4	5	3
Lead	ppm ASTM D5185(m) >45	0	1	<1
Copper	ppm ASTM D5185(m) >85	2	5	2
Tin	ppm ASTM D5185(m) >4	0	<1	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	2	4
Barium	ppm ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm ASTM D5185(m) 60	71	156	146
Manganese	ppm ASTM D5185(m) 0	0	0	<1
Magnesium	ppm ASTM D5185(m) 1010	945	844	927
Calcium	ppm ASTM D5185(m) 1070	1015	967	942
Phosphorus	ppm ASTM D5185(m) 1150	976	769	1028
Zinc	ppm ASTM D5185(m) 1270	1144	1051	1118
Sulfur	ppm ASTM D5185(m) 2060	2711	2491	2595
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

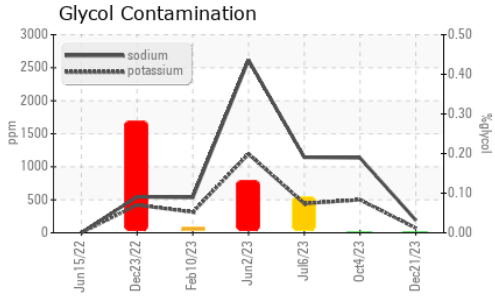
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >30	6	10	9
Sodium	ppm ASTM D5185(m)	▲ 191	▲ 1134	▲ 1143
Potassium	ppm ASTM D5185(m) >20	73	▲ 500	▲ 444
Glycol	% ASTM D7922*	0.0	0.0	▲ 0.089

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0.2	0.3	0.1
Nitration	Abs/cm ASTM D7624*	8.1	12.7	10.5
Sulfation	Abs/.1mm ASTM D7415*	19.1	21.8	19.2



OIL ANALYSIS REPORT

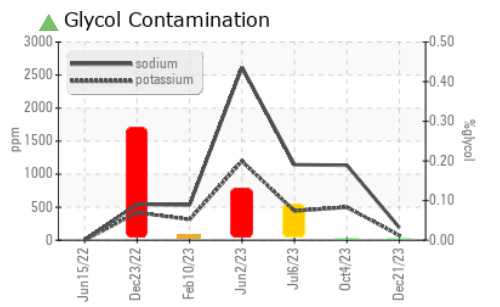
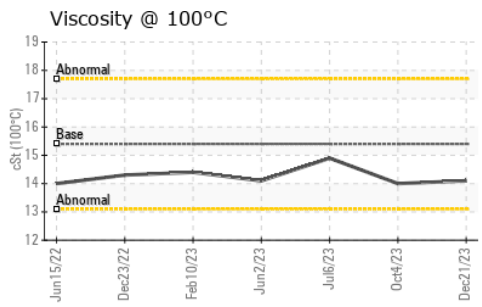
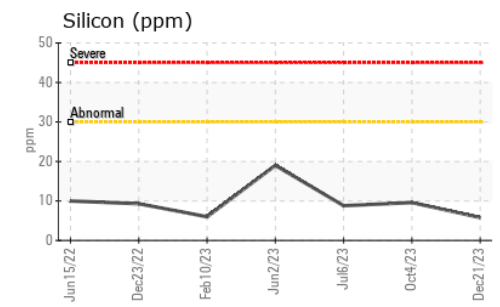
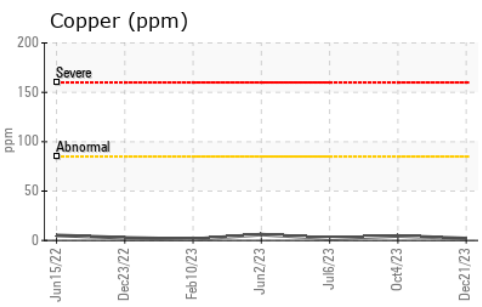
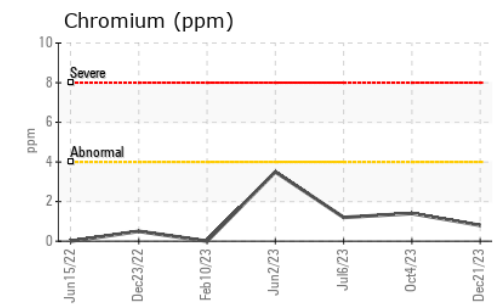
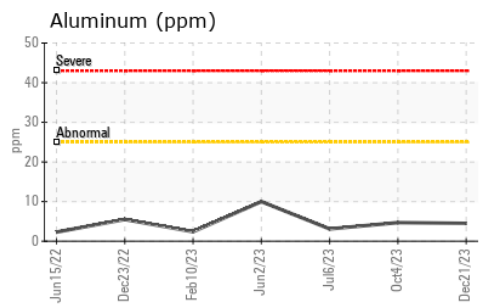
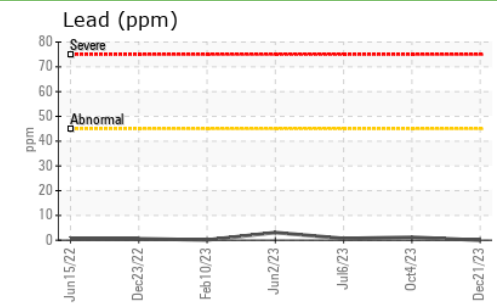
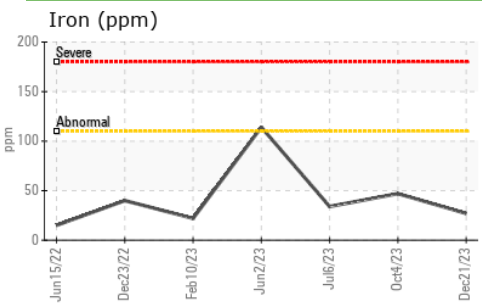
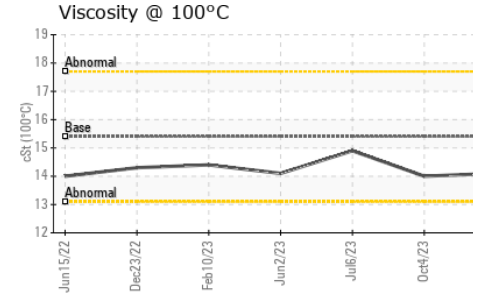


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.4	18.2	14.7

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	14.1	14.0	14.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0099515 **Received** : 02 Jan 2024
Lab Number : **02605726** **Diagnosed** : 02 Jan 2024
Unique Number : 5698811 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental - 522
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 Fort McMurray, AB
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 Contact: Brad Poole
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 T:
 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.