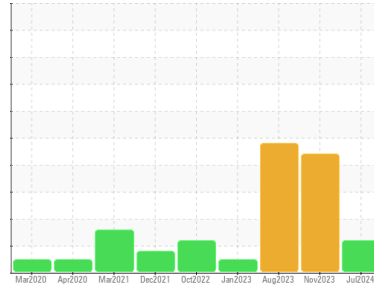




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area {UNASSIGNED}

Machine Id OR500

Component 1 Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (36 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. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected 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			GFL0124585	GFL0092238	GFL0087404
Sample Date	Client Info			08 Jul 2024	15 Nov 2023	02 Aug 2023
Machine Age	hrs	Client Info		18566	18038	16910
Oil Age	hrs	Client Info		500	1000	723
Oil Changed	Client Info			Changed	Not Changd	Changed
Sample Status				ATTENTION	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.21	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>51	23	22	49
Chromium	ppm	ASTM D5185(m)	>11	<1	<1	2
Nickel	ppm	ASTM D5185(m)	>5	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>31	1	2	1
Lead	ppm	ASTM D5185(m)	>26	1	3	18
Copper	ppm	ASTM D5185(m)	>26	2	3	4
Tin	ppm	ASTM D5185(m)	>4	<1	<1	1
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

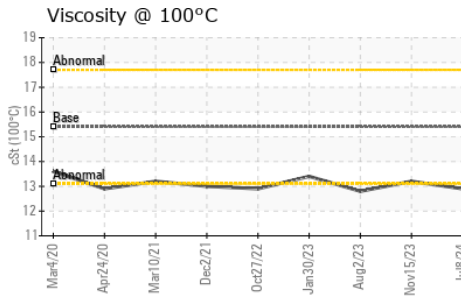
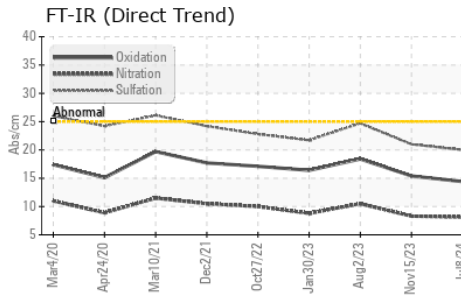
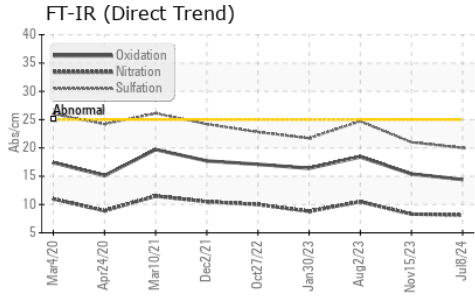
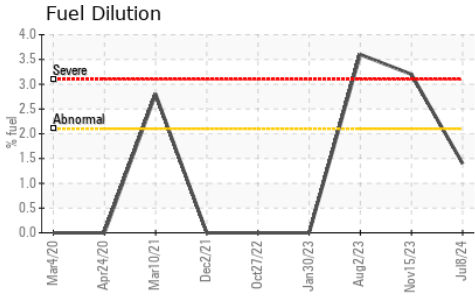
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	8	5	4
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	61	67	74
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	855	940	1020
Calcium	ppm	ASTM D5185(m)	1070	1225	1065	1200
Phosphorus	ppm	ASTM D5185(m)	1150	1006	978	1066
Zinc	ppm	ASTM D5185(m)	1270	1195	1177	1243
Sulfur	ppm	ASTM D5185(m)	2060	2547	2482	2374
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>22	4	4	5
Sodium	ppm	ASTM D5185(m)	>31	85	89	104
Potassium	ppm	ASTM D5185(m)	>20	45	51	61
Fuel	%	ASTM D7593*	>2.1	1.4	3.2	3.6
Glycol	%	ASTM D7922*		0.0	0.0	0.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.8	0.9	1.3
Nitration	Abs/cm	ASTM D7624*	>20	8.1	8.3	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	21.0	24.7



OIL ANALYSIS REPORT

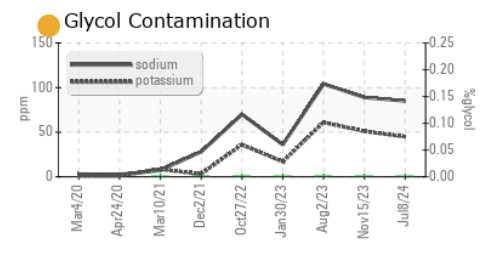
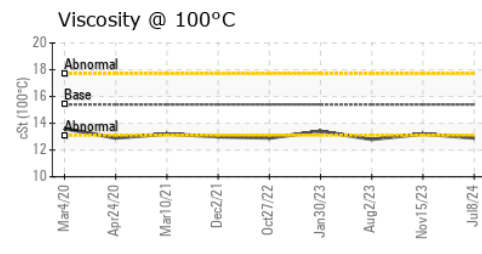
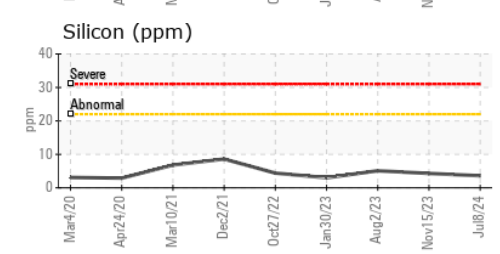
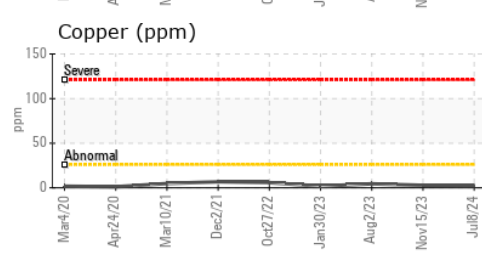
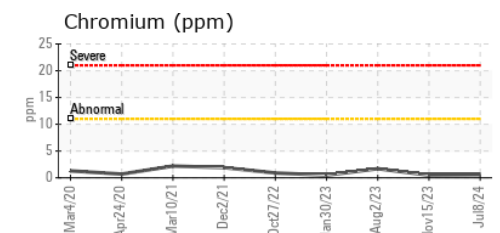
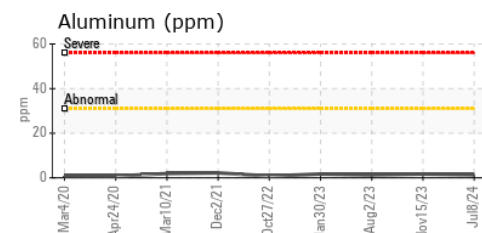
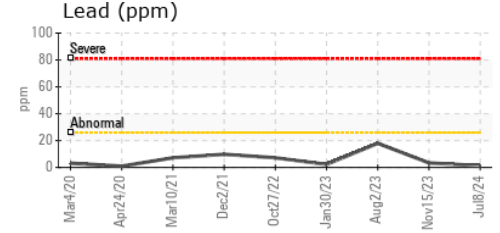
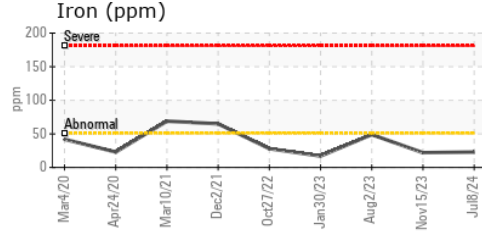


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.4	15.4	18.4

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.21	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	12.9	13.2	▲ 12.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 720 - Lafleche - Landfill**
Sample No. : GFL0124585 **Received** : 11 Jul 2024 17125 Lafleche Road,
Lab Number : **02647311** **Tested** : 12 Jul 2024 Moose Creek, ON
Unique Number : 5812863 **Diagnosed** : 15 Jul 2024 - Kevin Marson CA K0C 1W0
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel, Visual) Contact: Charles Bergeron
 cbergeron@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.