



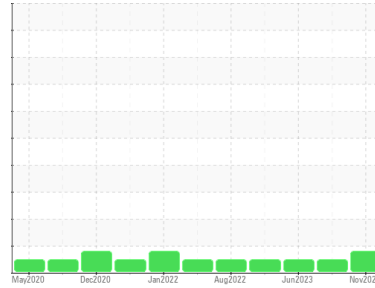
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
428008
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0097313	GFL0090862	GFL0078512
Sample Date	Client Info		30 Nov 2023	05 Sep 2023	20 Jun 2023
Machine Age	hrs	Client Info	0	0	306308
Oil Age	hrs	Client Info	11219	10808	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			MARGINAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	5	9	8
Chromium	ppm	ASTM D5185(m)	>5	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	1	2	5
Lead	ppm	ASTM D5185(m)	>30	<1	3	<1
Copper	ppm	ASTM D5185(m)	>150	<1	3	3
Tin	ppm	ASTM D5185(m)	>5	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	116	3	4
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	60	3	59	55
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	23	964	915
Calcium	ppm	ASTM D5185(m)	1070	1994	1055	1021
Phosphorus	ppm	ASTM D5185(m)	1150	881	1013	987
Zinc	ppm	ASTM D5185(m)	1270	1078	1190	1137
Sulfur	ppm	ASTM D5185(m)	2060	2738	2372	2469
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

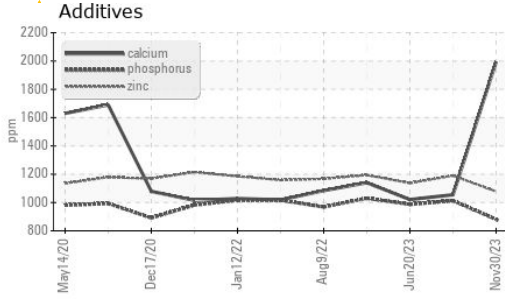
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	2	4	3
Sodium	ppm	ASTM D5185(m)		2	3	3
Potassium	ppm	ASTM D5185(m)	>20	4	2	0
Fuel	%	ASTM D7593*	>5	▲ 2.7	<1.0	<1.0

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.2	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.5	8.9	6.3
Sulfation	Abs./1mm	ASTM D7415*	>30	21.5	21.6	18.7



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	17.3	16.2	14.1

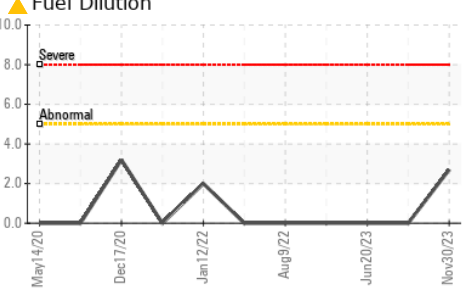
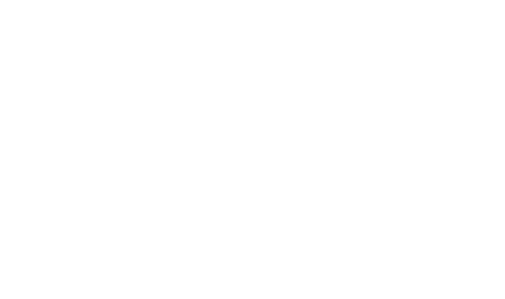
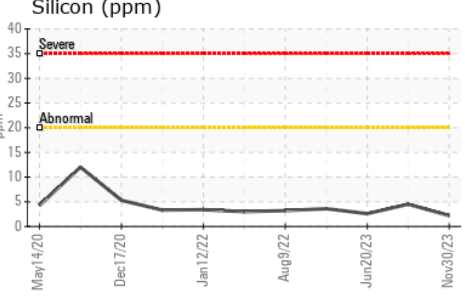
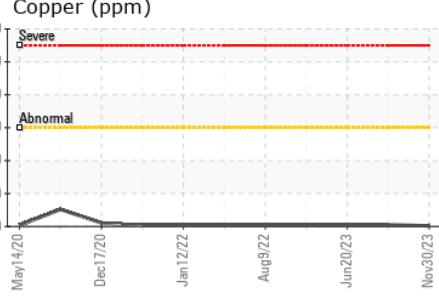
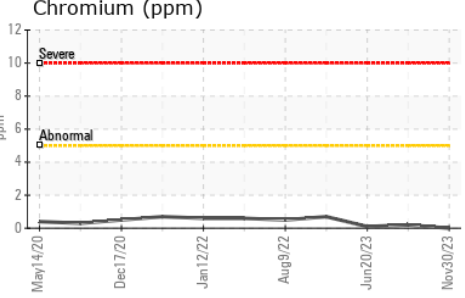
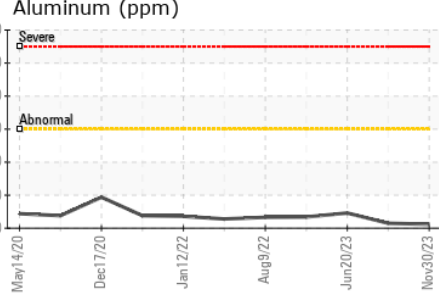
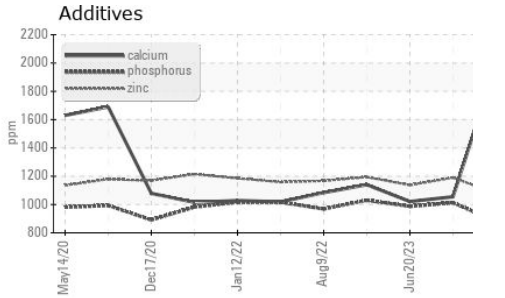
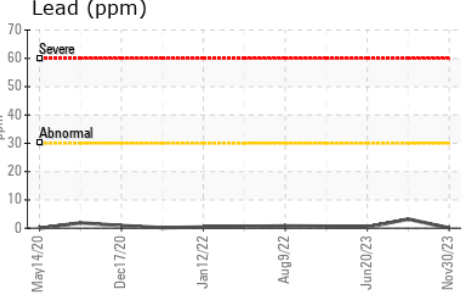
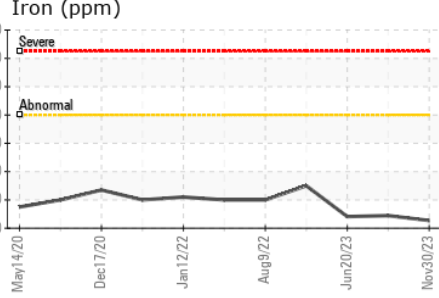
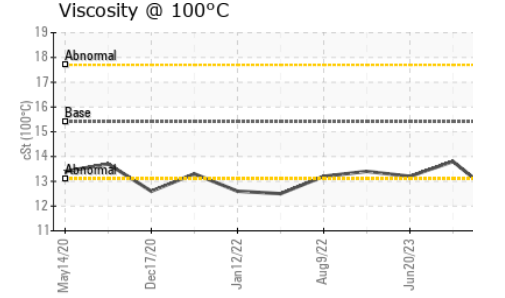
VISUAL

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	12.4	13.8	13.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0097313 **Received** : 05 Dec 2023 2700 Deziel Dr
Lab Number : 02600897 **Diagnosed** : 06 Dec 2023 Windsor, ON
Unique Number : 5693982 **Diagnostician** : Wes Davis CA N8W 5H8
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel) Contact: Dave Varga
 dvarga@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.

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