



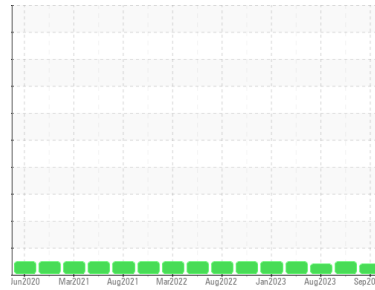
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id
728002
 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. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0053578	GFL0090855	GFL0090847
Sample Date	Client Info	29 Sep 2023	15 Sep 2023	17 Aug 2023
Machine Age	hrs	0	0	11736
Oil Age	hrs	0	13402	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >120	4	16	8
Chromium	ppm	ASTM D5185(m) >20	0	2	<1
Nickel	ppm	ASTM D5185(m) >5	<1	2	1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m) >20	1	5	2
Lead	ppm	ASTM D5185(m) >40	<1	<1	<1
Copper	ppm	ASTM D5185(m) >330	<1	<1	<1
Tin	ppm	ASTM D5185(m) >15	0	0	<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	48	7	23
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 60	42	54	41
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	539	882	510
Calcium	ppm	ASTM D5185(m) 1070	1597	1099	1645
Phosphorus	ppm	ASTM D5185(m) 1150	743	1003	754
Zinc	ppm	ASTM D5185(m) 1270	882	1148	875
Sulfur	ppm	ASTM D5185(m) 2060	2075	2308	1947
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	7	3	5
Sodium	ppm	ASTM D5185(m)	3	4	10
Potassium	ppm	ASTM D5185(m) >20	0	<1	<1
Fuel	%	ASTM D7593* >3.0	0.7	<1.0	0.8

INFRA-RED

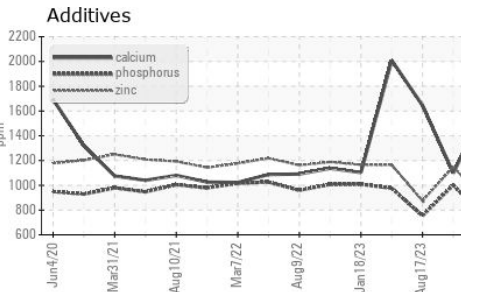
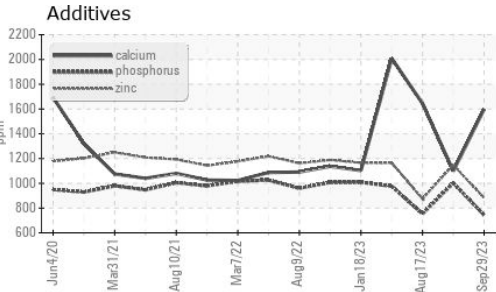
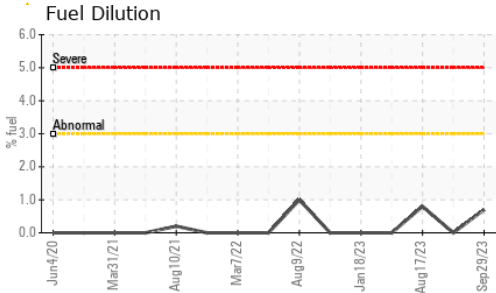
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >4	0	0.2	0.3
Nitration	Abs/cm	ASTM D7624* >20	5.7	7.5	9.8
Sulfation	Abs/.1mm	ASTM D7415* >30	21.7	19.2	23.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	18.7	15.0	22.4



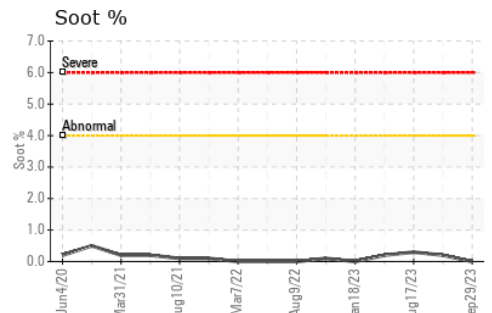
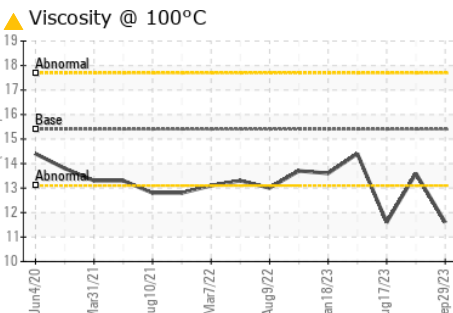
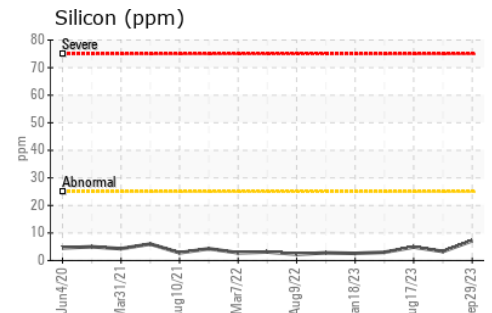
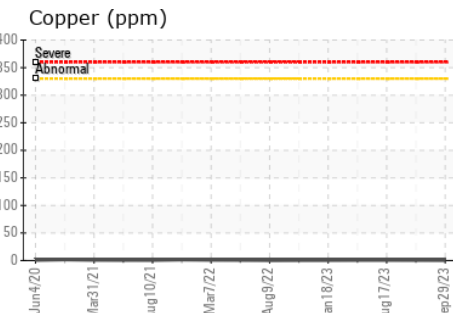
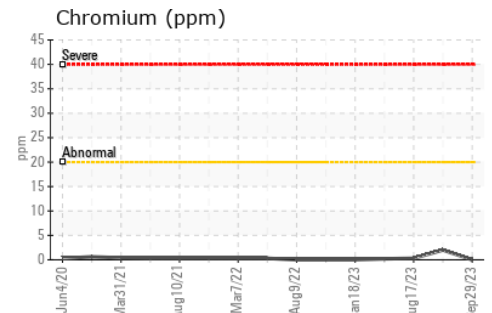
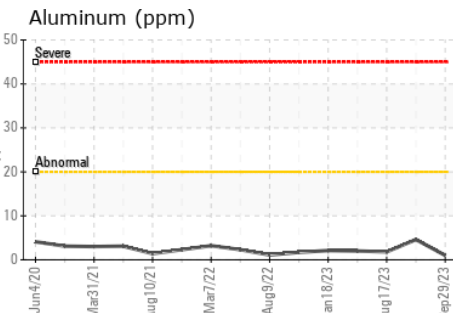
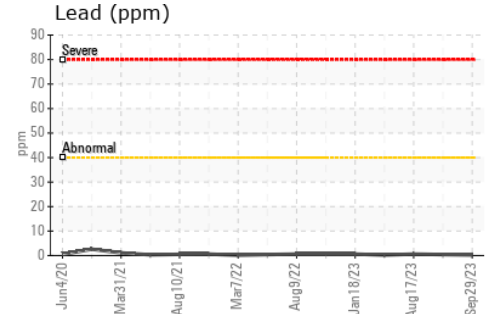
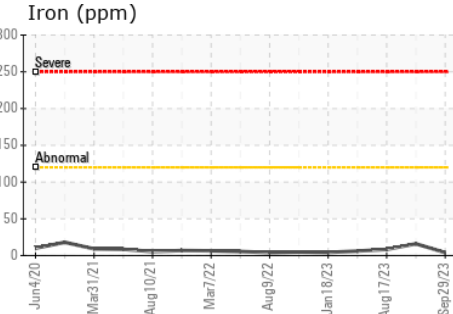
OIL ANALYSIS REPORT



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	▲ 11.6	13.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0053578 **Received** : 03 Oct 2023 2700 Deziel Dr
Lab Number : 02586296 **Diagnosed** : 04 Oct 2023 Windsor, ON
Unique Number : 5655362 **Diagnostician** : Kevin Marson 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.