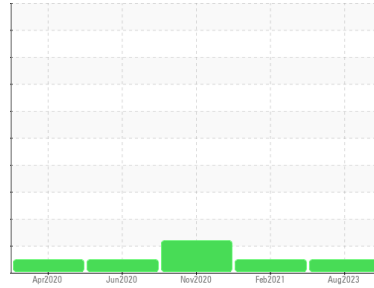




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
7008A

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0092749	GFL05175346	GFL0014562	
Sample Date	Client Info	29 Aug 2023	04 Feb 2021	23 Nov 2020	
Machine Age	hrs	Client Info	0	0	7428
Oil Age	hrs	Client Info	0	0	868
Oil Changed	Client Info	Not Changed	N/A	Changed	
Sample Status		NORMAL	NORMAL	ATTENTION	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >90	13	18	39
Chromium	ppm	ASTM D5185m >20	<1	<1	2
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m >2	0	<1	1
Silver	ppm	ASTM D5185m >2	0	<1	0
Aluminum	ppm	ASTM D5185m >20	7	10	6
Lead	ppm	ASTM D5185m >40	0	<1	5
Copper	ppm	ASTM D5185m >330	<1	<1	2
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Antimony	ppm	ASTM D5185m	---	<1	7
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 2	41	19	15
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 50	41	71	22
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 950	558	757	143
Calcium	ppm	ASTM D5185m 1050	1633	1131	2172
Phosphorus	ppm	ASTM D5185m 995	748	940	867
Zinc	ppm	ASTM D5185m 1180	914	1072	1052
Sulfur	ppm	ASTM D5185m 2600	2843	2397	2759

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	4	7	12
Sodium	ppm	ASTM D5185m	20	37	▲ 114
Potassium	ppm	ASTM D5185m >20	12	3	14

INFRA-RED

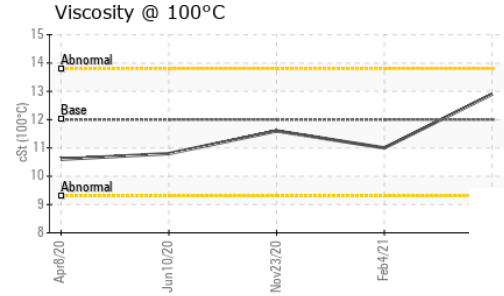
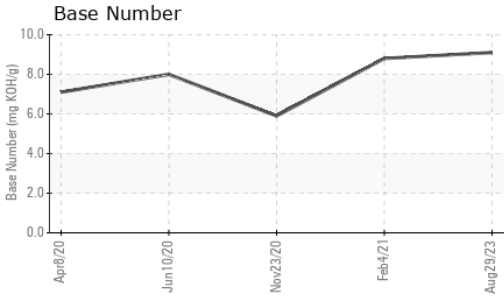
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >6	0.3	0.2	0.6
Nitration	Abs/cm	*ASTM D7624 >20	8.0	7.1	10.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.4	19.2	23.3

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.1	13.8	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.1	8.8	5.9



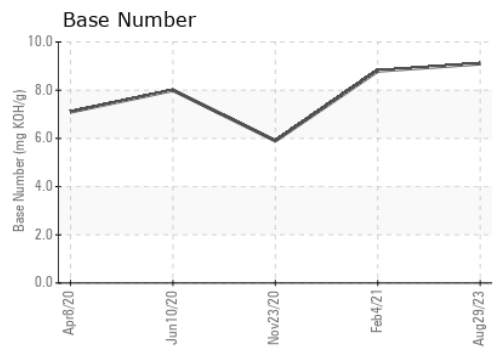
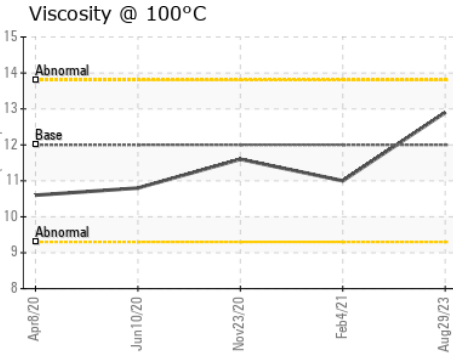
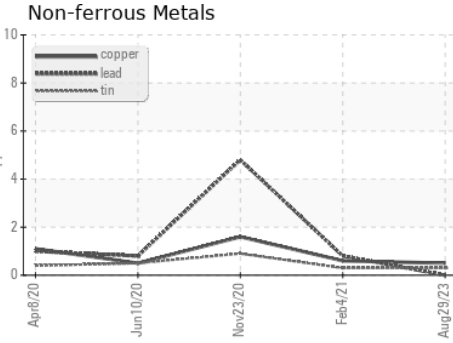
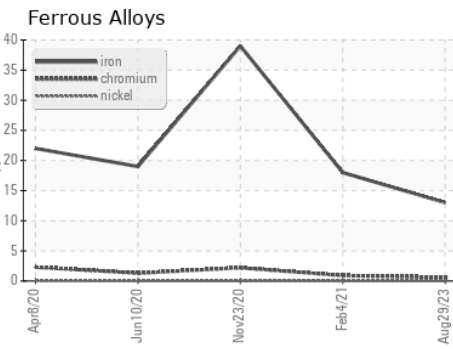
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
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 D445	12.00	12.9	11.0	11.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092749 **Received** : 01 Sep 2023
Lab Number : **05941167** **Diagnosed** : 06 Sep 2023
Unique Number : 10631779 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 451 - Royal Oak
 414 E. Hudson Ave.
 Royal Oak, MI
 US 48067
 Contact: Tim Bugay
 tbugay@gflenv.com
 T: (586)817-4057
 F:

Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)