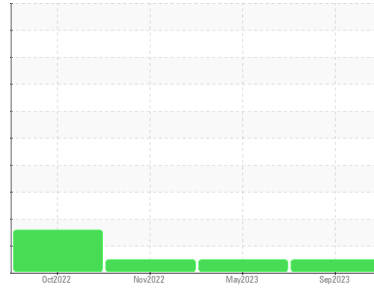




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
123058

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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		GFL0091614	GFL0077621	GFL0063698
Sample Date	Client Info		11 Sep 2023	11 May 2023	22 Nov 2022
Machine Age	kms	Client Info	202215	1976597	10267
Oil Age	kms	Client Info	0	0	541
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

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) >110	10	5	7
Chromium	ppm	ASTM D5185(m) >4	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	0	<1	0
Titanium	ppm	ASTM D5185(m)	0	<1	0
Silver	ppm	ASTM D5185(m) >2	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >25	1	1	2
Lead	ppm	ASTM D5185(m) >45	<1	<1	<1
Copper	ppm	ASTM D5185(m) >85	<1	<1	<1
Tin	ppm	ASTM D5185(m) >4	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
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	4	6
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	59	58	60
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	982	941	967
Calcium	ppm	ASTM D5185(m) 1070	1078	1077	1150
Phosphorus	ppm	ASTM D5185(m) 1150	1109	1064	1108
Zinc	ppm	ASTM D5185(m) 1270	1196	1130	1220
Sulfur	ppm	ASTM D5185(m) 2060	2692	2645	2772
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

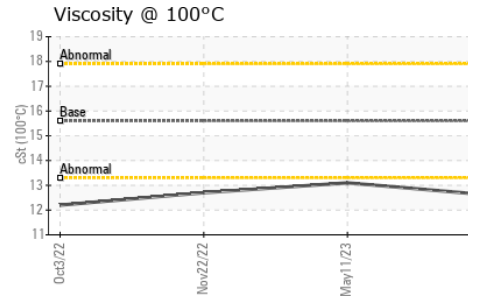
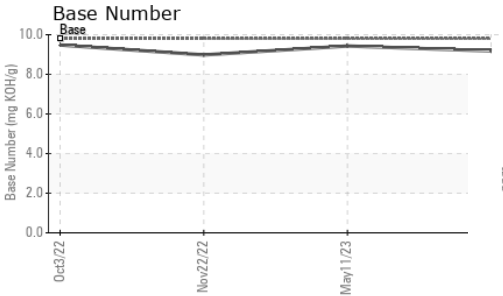
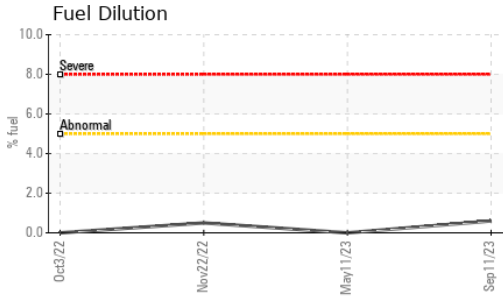
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >30	4	3	5
Sodium	ppm	ASTM D5185(m)	1	1	2
Potassium	ppm	ASTM D5185(m) >20	<1	0	0
Fuel	%	ASTM D7593* >5	0.6	<1.0	0.5

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.5	0.2	0.2
Nitration	Abs/cm	ASTM D7624* >20	5.4	5.1	5.7
Sulfation	Abs/.1mm	ASTM D7415* >30	18.8	18.1	19.5



OIL ANALYSIS REPORT

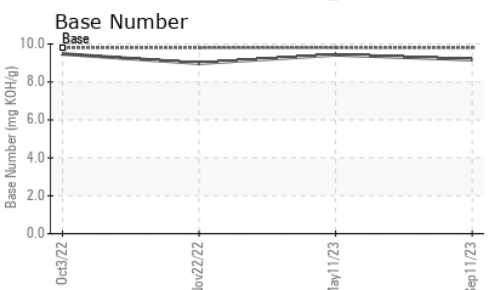
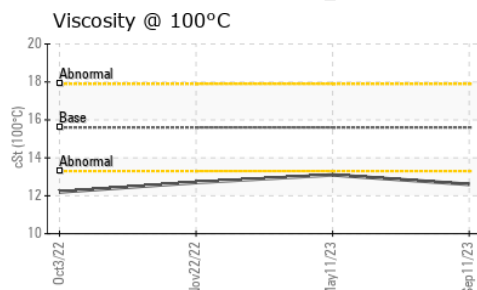
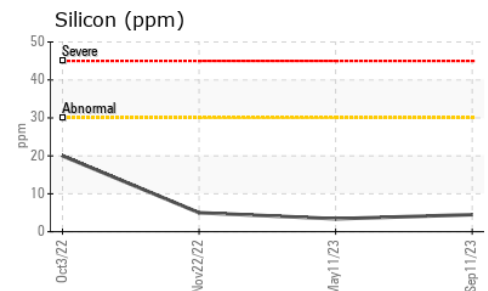
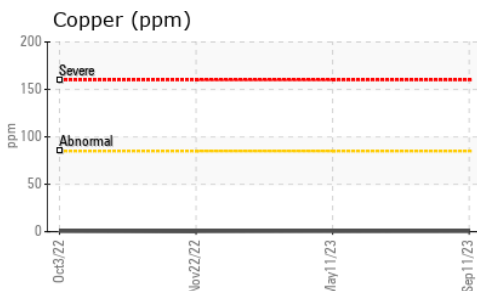
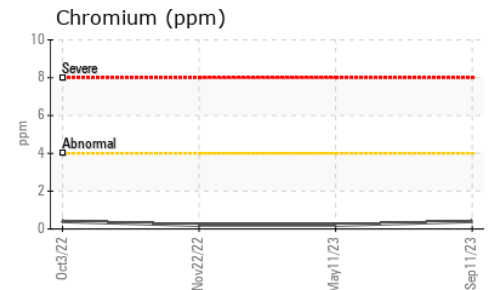
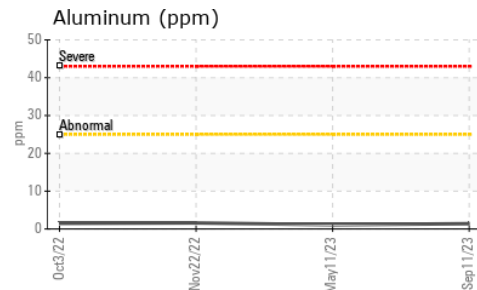
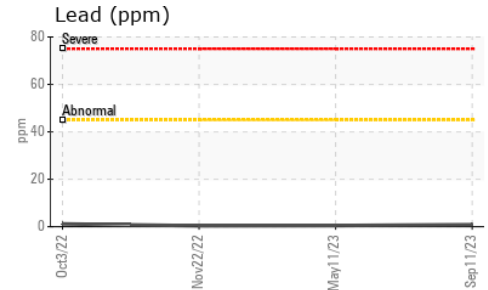
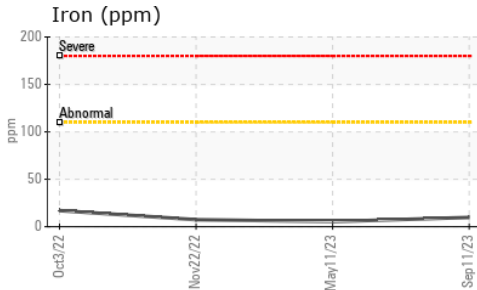


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.3	13.3	13.8
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	9.18	9.43	8.98

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)	15.6	12.6	13.1	12.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0091614 **Received** : 19 Sep 2023 220 Carmek Blvd
Lab Number : **02583458** **Diagnosed** : 20 Sep 2023 Rocky View County, AB
Unique Number : 5644523 **Diagnostician** : Wes Davis CA T1X 1X1
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel) Contact: GFL Calgary
 calgarymaintenance@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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