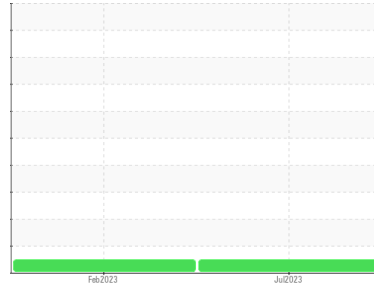




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
127063

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- 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		GFL0084294	GFL0063746	---
Sample Date	Client Info		26 Jul 2023	01 Feb 2023	---
Machine Age	kms	Client Info	274026	773	---
Oil Age	kms	Client Info	0	652	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	4	9	---
Chromium	ppm	ASTM D5185(m) >20	0	0	---
Nickel	ppm	ASTM D5185(m) >4	0	0	---
Titanium	ppm	ASTM D5185(m)	0	0	---
Silver	ppm	ASTM D5185(m) >3	0	0	---
Aluminum	ppm	ASTM D5185(m) >20	<1	1	---
Lead	ppm	ASTM D5185(m) >40	<1	<1	---
Copper	ppm	ASTM D5185(m) >330	<1	<1	---
Tin	ppm	ASTM D5185(m) >15	0	<1	---
Antimony	ppm	ASTM D5185(m)	<1	<1	---
Vanadium	ppm	ASTM D5185(m)	0	0	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 250	5	5	---
Barium	ppm	ASTM D5185(m) 10	0	0	---
Molybdenum	ppm	ASTM D5185(m) 100	58	57	---
Manganese	ppm	ASTM D5185(m)	<1	<1	---
Magnesium	ppm	ASTM D5185(m) 450	956	951	---
Calcium	ppm	ASTM D5185(m) 3000	1044	1123	---
Phosphorus	ppm	ASTM D5185(m) 1150	1053	1121	---
Zinc	ppm	ASTM D5185(m) 1350	1157	1192	---
Sulfur	ppm	ASTM D5185(m) 4250	2651	2773	---
Lithium	ppm	ASTM D5185(m)	<1	<1	---

CONTAMINANTS

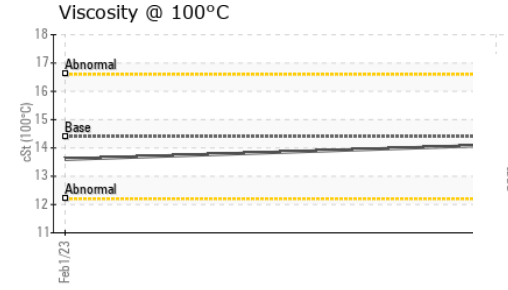
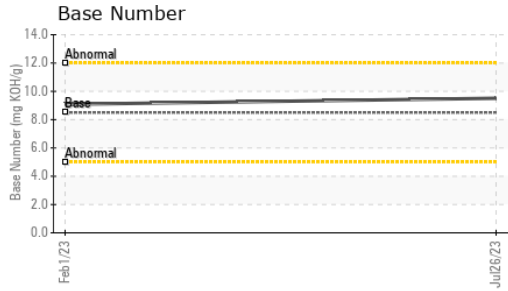
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	6	---
Sodium	ppm	ASTM D5185(m) >158	1	1	---
Potassium	ppm	ASTM D5185(m) >20	<1	<1	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0	0	---
Nitration	Abs/cm	ASTM D7624* >20	5.7	7.5	---
Sulfation	Abs./1mm	ASTM D7415* >30	18.8	19.6	---



OIL ANALYSIS REPORT

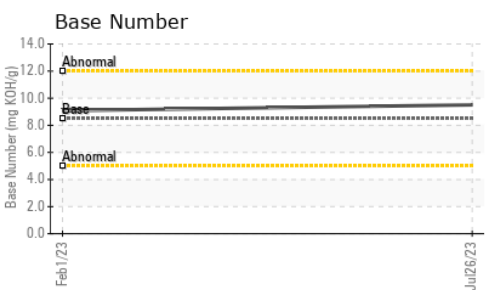
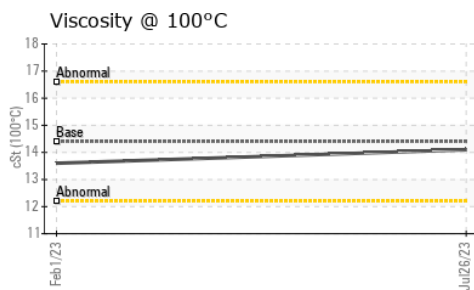
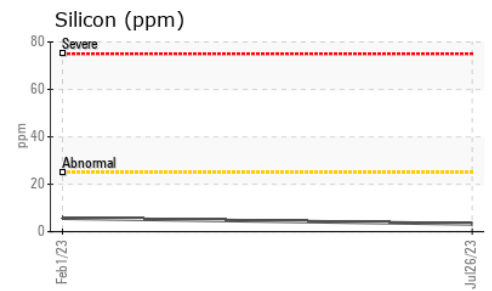
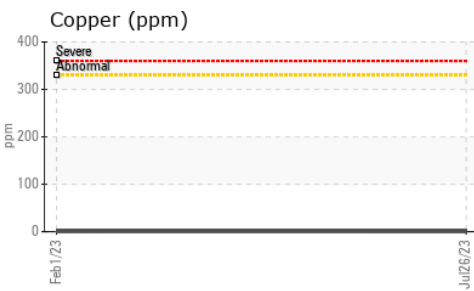
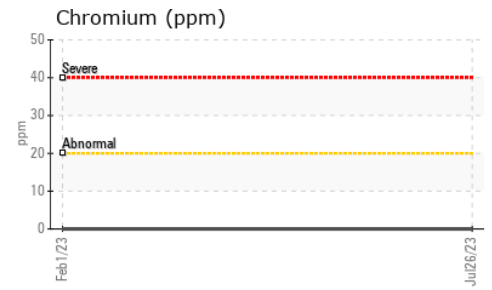
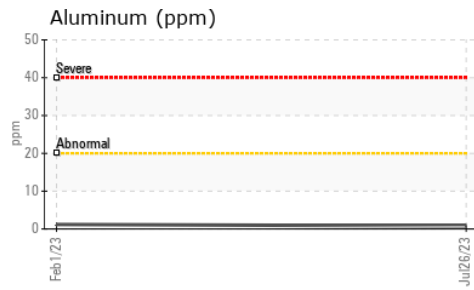
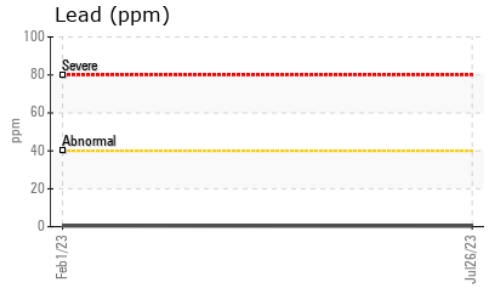
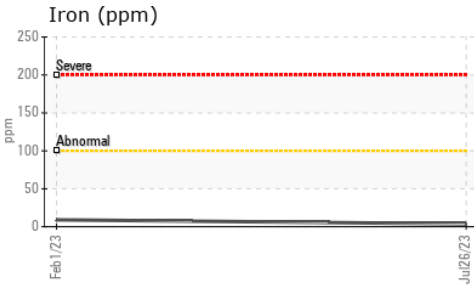


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.0	15.3	---
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	9.51	9.08	---

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)	14.4	14.1	13.6	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0084294 **Received** : 15 Aug 2023 220 Carmek Blvd
Lab Number : **02575835** **Diagnosed** : 16 Aug 2023 Rocky View County, AB
Unique Number : 5628895 **Diagnostician** : Wes Davis CA T1X 1X1
Test Package : MOB 2 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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