



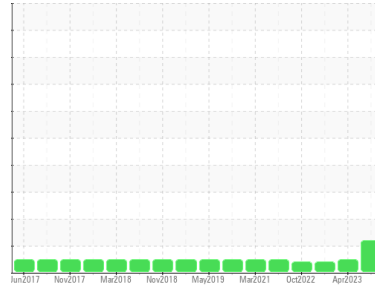
OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Machine Id
4486
Component
Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Water treatment chemicals present, indicating slow coolant leak. The water content is negligible. Test for glycol is negative. 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 acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0084310	GFL0077570	GFL0060201
Sample Date	Client Info		01 Aug 2023	19 Apr 2023	18 Oct 2022
Machine Age	hrs	Client Info	37937	37465	37256
Oil Age	hrs	Client Info	474	209	528
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ATTENTION	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	0.5	1.9

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	33	22	56
Chromium	ppm	ASTM D5185(m)	>20	1	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	2	2	4
Lead	ppm	ASTM D5185(m)	>40	1	<1	13
Copper	ppm	ASTM D5185(m)	>330	2	2	7
Tin	ppm	ASTM D5185(m)	>15	<1	<1	2
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)	1	2	3	4
Barium	ppm	ASTM D5185(m)	1	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	80	57	62
Manganese	ppm	ASTM D5185(m)	1	<1	<1	2
Magnesium	ppm	ASTM D5185(m)	1010	888	894	926
Calcium	ppm	ASTM D5185(m)	1070	1015	1055	1151
Phosphorus	ppm	ASTM D5185(m)	1150	991	1039	1075
Zinc	ppm	ASTM D5185(m)	1270	1105	1127	1164
Sulfur	ppm	ASTM D5185(m)	2060	2480	2578	2730
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

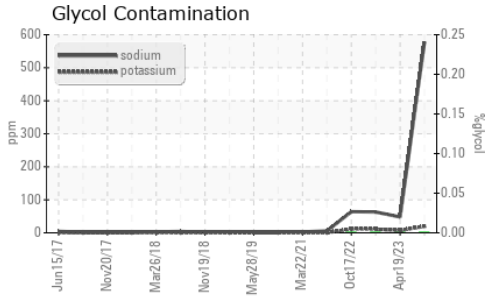
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	8	5	10
Sodium	ppm	ASTM D5185(m)		578	48	63
Potassium	ppm	ASTM D5185(m)	>20	20	7	11
Glycol	%	ASTM D7922*		0.0	0.0	0.0

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.5	0.2	0.4
Nitration	Abs/cm	ASTM D7624*	>20	8.7	5.9	7.4
Sulfation	Abs./1mm	ASTM D7415*	>30	20.9	18.3	21.1



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*	>25	13.5	15.6
Base Number (BN)	mg KOH/g ASTM D2896*	9.6	9.42	10.15

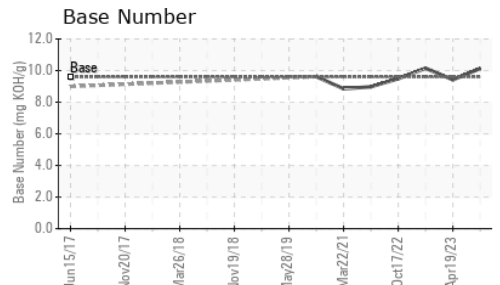
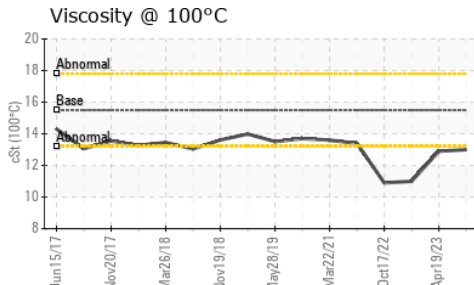
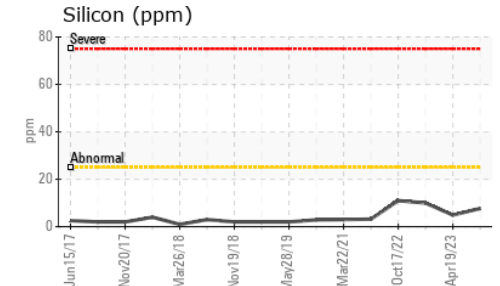
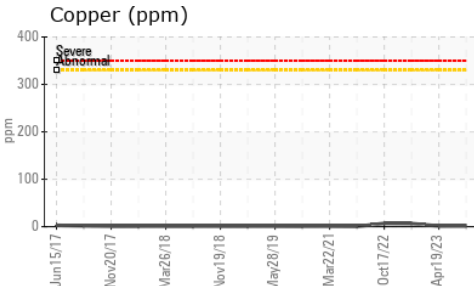
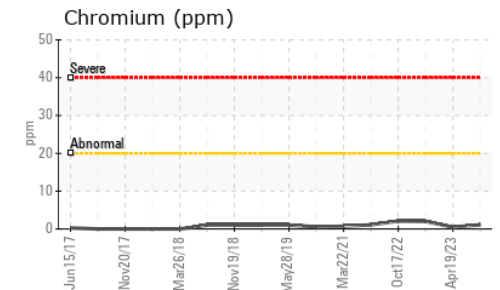
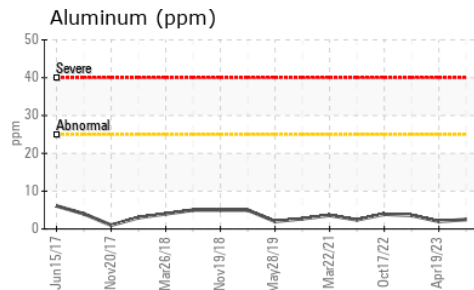
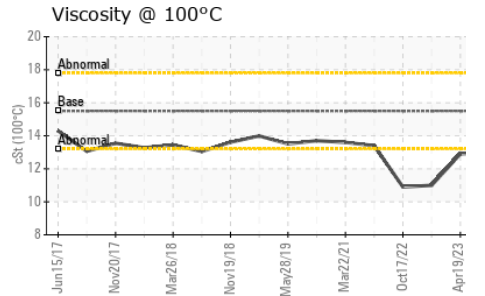
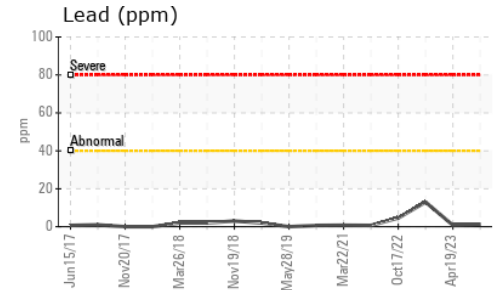
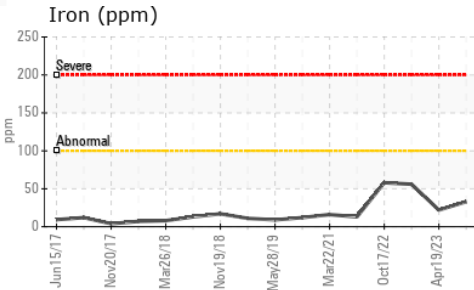
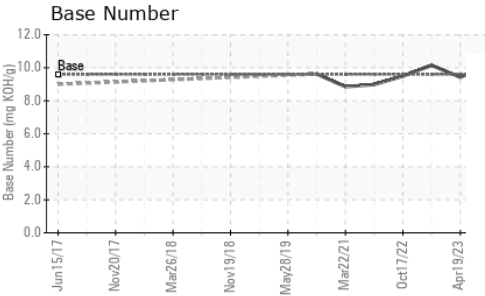
VISUAL

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)	15.5	12.9	▲ 11.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0084310 **Received** : 08 Aug 2023 220 Carmek Blvd
Lab Number : 02574453 **Diagnosed** : 09 Aug 2023 Rocky View County, AB
Unique Number : 5619504 **Diagnostician** : Kevin Marson CA T1X 1X1
Test Package : MOB 2 (Additional Tests: Glycol) 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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