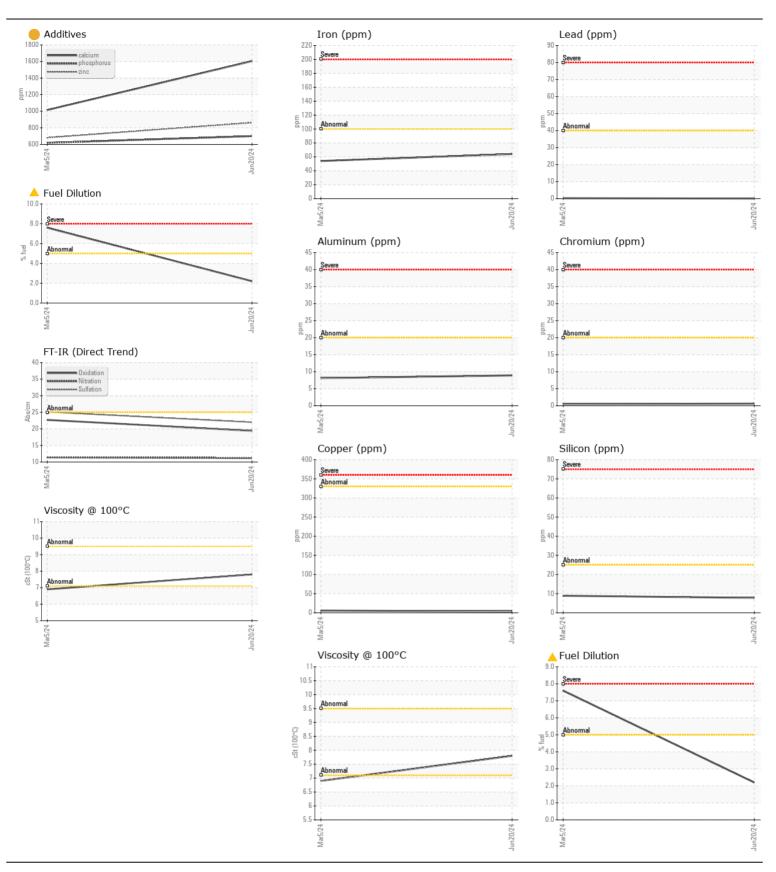
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL MARGINAL ATTENTION

Machine Id

352180

Diesel Engine Pluid DEXOS 0W20 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.	Sample Number		Client Info		GFL0097985	GFL0097971	
	Sample Date		Client Info		20 Jun 2024	05 Mar 2024	
	Machine Age	kms	Client Info		34545	33278	
	Oil Age	kms	Client Info		0	0	
	Filter Age	kms	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ATTENTION	ABNORMAL	
WEAR	Iron	ppm	ASTM D5185(m)	>100	64	54	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)	>20	<1	<1	
	Nickel	ppm	ASTM D5185(m)	>4	<1	<1	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)	>3	<1	<1	
	Aluminum	ppm	ASTM D5185(m)	>20	9	8	
	Lead	ppm	ASTM D5185(m)	>40	0	<1	
	Copper	ppm	ASTM D5185(m)	>330	4	6	
	Tin	ppm	ASTM D5185(m)	>15	<1	<1	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	> 25	8	9	
Light fuel dilution occurring. No other contaminants were detected in the oil.	Potassium	ppm	ASTM D5185(m)	>20	2	3	
	Fuel	%	ASTM D7593*	>5	<u>^</u> 2.2	<u> </u>	
	Water	,0	WC Method		NEG	NEG	
	Glycol		WC Method	7 U.L	NEG	NEG	
	Soot %	%		>3	0.3	0.4	
	Nitration	Abs/cm	ASTM D7624*	>20	11.2	11.4	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	22.0	25.1	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		2	2	
Additive levels indicate the addition of a different brand, or type of oil.	Boron	ppm	ASTM D5185(m)		30	32	
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)		0	0	
	Molybdenum	ppm	ASTM D5185(m)		27	42	
	Manganese	ppm	ASTM D5185(m)		<1	<1	
	Magnesium	ppm	ASTM D5185(m)		70	407	
	Calcium	ppm	ASTM D5185(m)		1604	1014	
	Phosphorus	ppm	ASTM D5185(m)		699	618	
	Zinc	ppm	ASTM D5185(m)		862	680	
	Sulfur	ppm	ASTM D5185(m)		<u> </u>	3226	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	19.4	22.7	
	Visc @ 100°C	cSt	ASTM D7279(m)		7.8	△ 6.9	





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : GFL0097985

Lab Number : 02644775

Unique Number : 5802314

Test Package: MOB 1 (Additional Tests: PercentFuel) 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.

Received

Diagnosed

Tested

: 02 Jul 2024

: 03 Jul 2024

: 03 Jul 2024 - Wes Davis

GFL Environmental - 593 4421 Boban Drive

Nanaimo, BC **CA V9T 6A6** Contact: Patrick Rutti prutti@gflenv.com

T: (250)739-3345