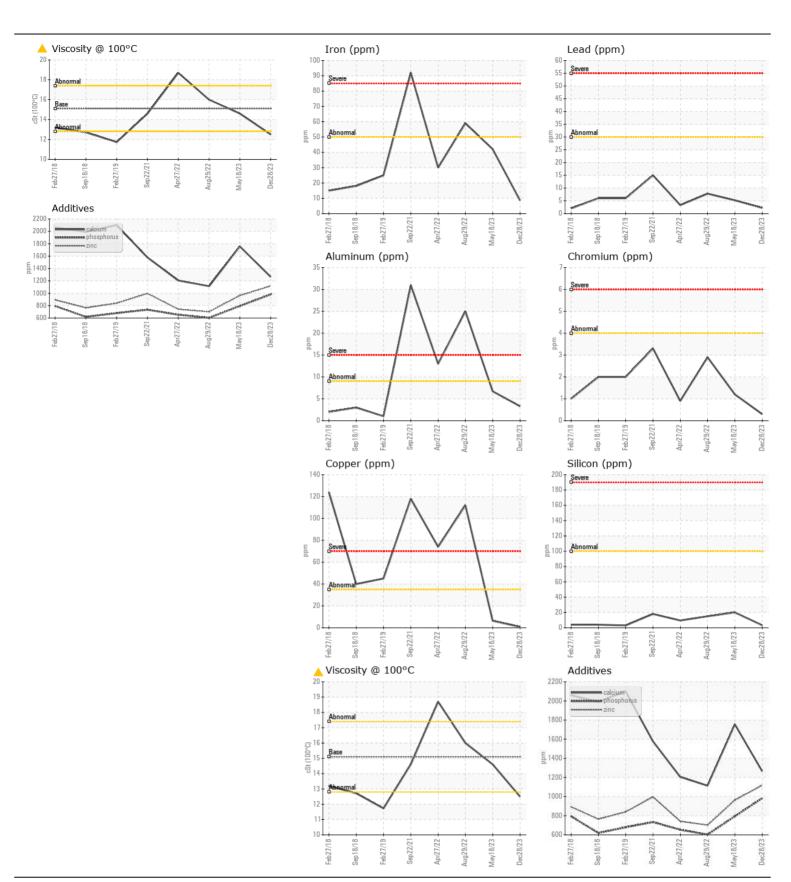
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL ABNORMAL

Machine Id 901012

Component Natural Gas Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA DURON GEO LD 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.	Sample Number		Client Info		GFL0101692	GFL0077991	,
	Sample Date		Client Info		28 Dec 2023	18 May 2023	29 Aug 202
	Machine Age	hrs	Client Info		15502	27164	0
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	N/A	Changed
	Sample Status				ABNORMAL	NORMAL	ABNORMAI
WEAR	Iron	ppm	ASTM D5185(m)	>50	9	42	△ 59
WEAR	Chromium	ppm	ASTM D5185(m)		<1	1	3
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		<1	1	<u>^</u> 2
	Titanium	ppm	ASTM D5185(m)		0	<1	<1
	Silver	ppm	ASTM D5185(m)	>3	0	0	0
	Aluminum	ppm	ASTM D5185(m)	>9	3	7	<u>^</u> 25
	Lead	ppm	ASTM D5185(m)	>30	2	5	8
	Copper	ppm	ASTM D5185(m)	>35	<1	6	112
	Tin	ppm	ASTM D5185(m)	>4	<1	3	1
	Vanadium	ppm	ASTM D5185(m)		0	0	0
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>+100	3	20	15
SONTAMINATION	Potassium	ppm	ASTM D5185(m)		2	4	<u>▲</u> 183
There is no indication of any contamination in the oil.	Water	PPIII	WC Method	>0.1	NEG	NEG	NEG
	Glycol		WC Method				△ 0.034
	Soot %	%	ASTM D7844*		0	0	0
	Nitration	Abs/cm	ASTM D7624*	>20	7.0	12.0	18.3
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	27.3	23.5
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		4	11	▲ 3524
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	50	5	6	4
	Barium	ppm	ASTM D5185(m)	5	0	6	<1
	Molybdenum	ppm	ASTM D5185(m)	50	57	56	214
	Manganese	ppm	ASTM D5185(m)	0	0	6	3
	Magnesium	ppm	ASTM D5185(m)	560	861	649	393
	Calcium	ppm	ASTM D5185(m)	1510	1265	1755	1114
	Phosphorus	ppm	ASTM D5185(m)	780	982	794	603
	Zinc	ppm	ASTM D5185(m)	870	1118	963	701
	Sulfur	ppm	ASTM D5185(m)	2040	2588	2176	1829
	Oxidation	Abs/.1mm	ASTM D7414*		15.5	22.0	18.9
	Visc @ 100°C	cSt	ASTM D7279(m)		12.5	14.6	16.0





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number**

: GFL0101692

Recieved Diagnosed : 02606698

: 5707784 Diagnostician : 05 Jan 2024

: 05 Jan 2024

: Kevin Marson

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

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW 8409 -15th Street NW Edmonton, AB CA T6P 0B8 Contact: Tim Greig tgreig@gflenv.com T: (780)231-0521