WEAR CONTAMINATION FLUID CONDITION

NORMAL

ABNORMAL

NORMAL

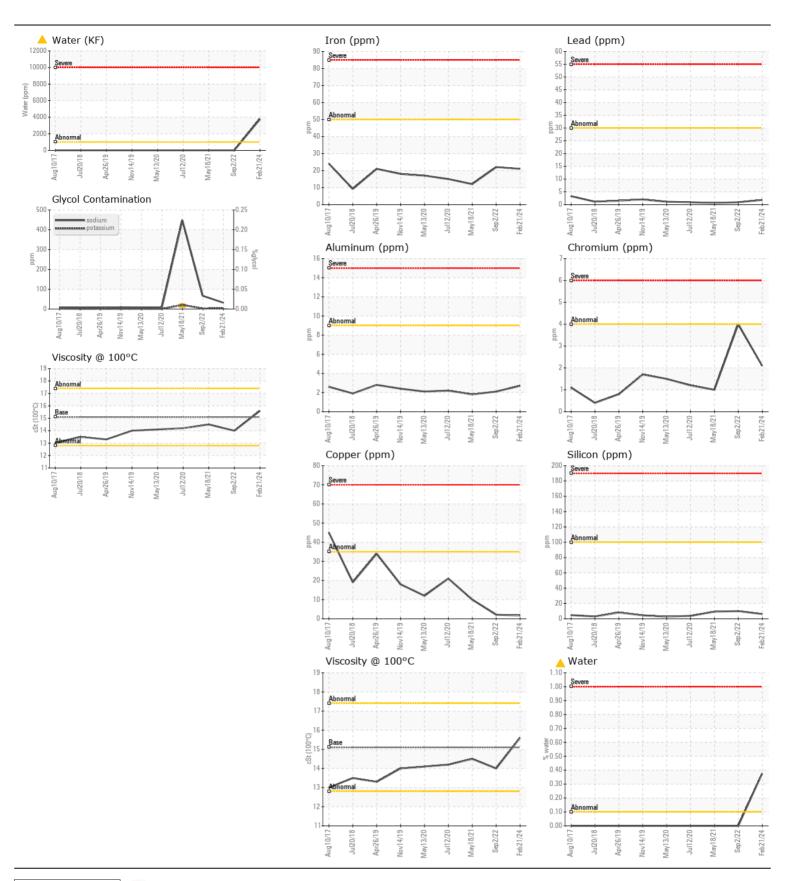


Machine Id
7105
Component

Component

1 Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (24 LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.	Sample Number		Client Info		GFL0086788	GFL0055416	GFL0022731
	Sample Date		Client Info		21 Feb 2024	02 Sep 2022	18 May 2021
	Machine Age	hrs	Client Info		14843	12813	0
	Oil Age	hrs	Client Info		14843	0	0
	Filter Age	hrs	Client Info		14843	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ABNORMAL	MARGINAL	ABNORMAL
WEAR	Iron	ppm	ASTM D5185(m)	>50	21	22	12
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>4	2	<u>4</u>	1
	Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
	Titanium	ppm	ASTM D5185(m)		0	<1	<1
	Silver	ppm	ASTM D5185(m)	>3	0	0	0
	Aluminum	ppm	ASTM D5185(m)	>9	3	2	2
	Lead	ppm	ASTM D5185(m)	>30	2	<1	<1
	Copper	ppm	ASTM D5185(m)	>35	2	2	10
	Tin	ppm	ASTM D5185(m)	>4	<1	<1	<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	6	10	9
CONTAININATION	Potassium	ppm	` ′	>20	4	2	<u>^</u> 21
There is a moderate concentration of water present in the oil. Test for glycol is negative.	Water	%	ASTM D6304*	>0.1	_ ▲ 0.376		
	ppm Water	ppm	ASTM D6304*		<u> </u>		
	Glycol	%	ASTM D7922*	7.000	0.0		△ 0.014
	Soot %	%	ASTM D7844*		0	0	0
	Nitration	Abs/cm	ASTM D7624*	>20	13.2	11.7	11.0
	Sulfation	Abs/.1mm		>30	24.8	24.9	21.0
	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	
	Emulsified Water		Visual*	>0.1	<b>.2</b> %	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		32	66	<b>448</b>
	Boron	ppm	ASTM D5185(m)	50	8	8	16
The oil is no longer serviceable due to the presence of contaminants.	Barium	ppm	ASTM D5185(m)		0	0	<1
	Molybdenum	ppm	ASTM D5185(m)		57	58	49
	Manganese	ppm	ASTM D5185(m)	0	<1	1	<1
	Magnesium	ppm	ASTM D5185(m)	560	570	478	557
	Calcium	ppm	ASTM D5185(m)	1510	1637	1563	1413
	Phosphorus	ppm	ASTM D5185(m)	780	754	715	734
	Zinc	ppm	ASTM D5185(m)	870	935	874	932
	Sulfur	ppm	ASTM D5185(m)	2040	2218	2039	2001
	Oxidation	Abs/.1mm	ASTM D7414*		20.3	19.5	16.7
	Visc @ 100°C	cSt	ASTM D7279(m)		15.6	14.0	14.5





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02617341

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : GFL0086788

Received Unique Number : 5734451

**Tested** Diagnosed

: 22 Feb 2024 : 23 Feb 2024

: 23 Feb 2024 - Kevin Marson Test Package : MOB 1 (Additional Tests: Glycol, KF, Visual)

SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD ORANGEVILLE, ON CA L9W 3X5 Contact: GLENN COOK

GFL Environmental - 222 - Sandhill

gcook@gflenv.com T: (519)940-4167

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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