

2000 Series

2310 omponen **Gasoline Engine**

{not provided} (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

Light fuel dilution occurring. There is a trace of moisture present in the oil. Test for glycol is negative. No other contaminants were detected in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

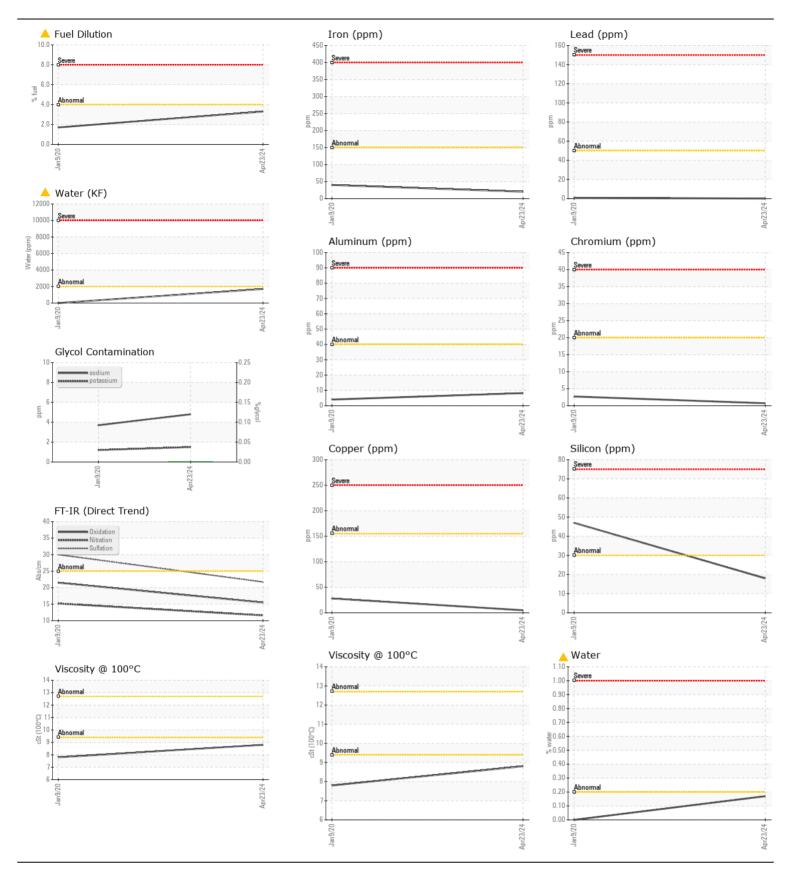
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0904858	WC0417869	
Sample Date		Client Info		23 Apr 2024	09 Jan 2020	
Machine Age	mls	Client Info		204961	43501	
Oil Age	mls	Client Info		8214	15940	
Filter Age	mls	Client Info		8214	15940	
Oil Changed		Client Info		Changed	Changed	
Filter Changed		Client Info		Changed	Changed	
Sample Status				MARGINAL	ABNORMAL	
Iron		ASTM D5185(m)	>150	20	40	
Chromium	ppm	ASTM D5185(m)	>20	<1	3	
Nickel	ppm		>5	<1 <1		
	ppm	ASTM D5185(m)	>0		<1	
Titanium	ppm	ASTM D5185(m)	0	0	<1	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)	>40	8	4	
Lead	ppm	ASTM D5185(m)	>50	0	<1	
Copper	ppm	ASTM D5185(m)	>155	5	28	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Vanadium	ppm	ASTM D5185(m)		0	<1	
Silicon	ppm	ASTM D5185(m)	>30	18	4 7	
Potassium	ppm	ASTM D5185(m)	>20	2	1	
Fuel	%	ASTM D7593*	>4.0	3 .3	1.7	
Water	%	ASTM D6304*	>0.2	A 0.170		
ppm Water	ppm	ASTM D6304*	>2000	1702		
Glycol	%	ASTM D7922*		0.0	NEG	
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	11.6	15.2	
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	30.0	
Emulsified Water	scalar	Visual*	>0.2	.2%	NEG	
Sodium	ppm	ASTM D5185(m)	>400	5	4	
Boron	ppm	ASTM D5185(m)		24	39	
Barium	ppm	ASTM D5185(m)		0	<1	
Molybdenum	ppm	ASTM D5185(m)		141	88	
Manganese	ppm	ASTM D5185(m)		1	6	
Manganese	ppm	ASTM D5185(m)		491	428	
Calcium		ASTM D5185(m)		930	1306	
Phosphorus	ppm	ASTM D5185(m)		930 650	623	
•	ppm					
Zinc	ppm	ASTM D5185(m)		746	724	
Sulfur	ppm	ASTM D5185(m)	05	1761	2093	
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.5	21.5	
Visc @ 100°C	cSt	ASTM D7279(m)		8.8	7.8	



Report Id: MANLIV [WCAMIS] 02632303 (Generated: 05/01/2024 23:33:30) Rev: 1

Contact/Location: Todd Smith - MANLIV

WEAR NORMAL CONTAMINATION MARGINAL FLUID CONDITION NORMAL



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 MANITOULIN TRANSPORT CALA Sample No. Received 75 MUMFORD ROAD : WC0904858 : 30 Apr 2024 Lab Number : 02632303 Tested LIVELY, ON :01 May 2024 ISO 17025:2017 Accredited CA P3Y 1L1 Unique Number : 5773456 Diagnosed : 01 May 2024 - Kevin Marson Laboratory Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, KF, PercentFuel) Contact: Todd Smith To discuss this sample report, contact Customer Service at 1-800-268-2131. tosmith@manitoulintransport.com T: (705)562-3302 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: x: Validity of results and interpretation are based on the sample and information as supplied.