

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



RECOMMENDATION

## LIEBHERR TA230 150775-1513

Hydraulic System

{not provided} (--- GAL)

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

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All component wear rates are normal.

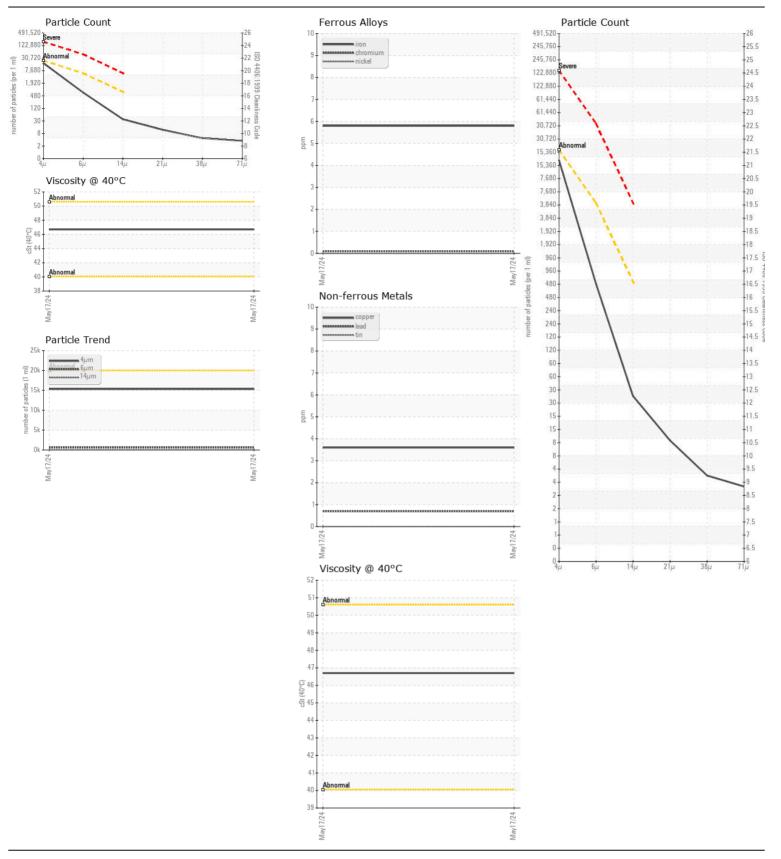
## CONTAMINATION

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289913		
Sample Date		Client Info		17 May 2024		
Machine Age	hrs	Client Info		1196		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185(m)	>20	6		
Chromium	ppm	ASTM D5185(m)	>10	<1		
Nickel	ppm	ASTM D5185(m)	>10	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	2		
Lead	ppm	ASTM D5185(m)	>10	<1		
Copper	ppm	ASTM D5185(m)	>75	4		
Tin	ppm	ASTM D5185(m)	>10	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>20	3		
Potassium	ppm	ASTM D5185(m)	>20	1		
Water		WC Method	>0.1	NEG		
Particles >4µm		ASTM D7647	>20000	15323		
Particles >6µm		ASTM D7647	>5000	604		
Particles >14µm		ASTM D7647	>640	32		
Particles >21µm		ASTM D7647	>160	10		
Particles >38µm		ASTM D7647	>40	4		
Particles >71µm		ASTM D7647	>10	3		
Oil Cleanliness		ISO 4406 (c)	>21/19/16	21/16/12		
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		
Emulsified Water	scalar	Visual*	>0.1	NEG		
0				_		
Sodium	ppm	ASTM D5185(m)		1		
Boron	ppm	ASTM D5185(m)		<1		
Barium	ppm	ASTM D5185(m)		<1		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		5		
Calcium	ppm	ASTM D5185(m)		1385		
Phosphorus	ppm	ASTM D5185(m)		612		
Zinc	ppm	ASTM D5185(m)		683		
Sulfur	ppm	ASTM D5185(m)		3749		
Visc @ 40°C	cSt	ASTM D7279(m)		46.7		



LES ENTREPRISES LOU-VIL INC Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : 04 Jun 2024 255 BOUL. LOUIS XIV : LH0289913 Lab Number : 02639659 Tested QUEBEC, QC : 05 Jun 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5788821 : 05 Jun 2024 - Wes Davis CA G2K 1W6 Diagnosed Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Service Manager To discuss this sample report, contact Customer Service at 1-800-268-2131. T: (418)622-2958 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: Validity of results and interpretation are based on the sample and information as supplied.