



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L580 040353-1170
Component
Rear Differential
Fluid
LIEBHERR GEAR BASIC 90 LS (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0174412	LH0167208	LH0167167
Sample Date		Client Info		12 May 2021	21 Aug 2020	19 May 2020
Machine Age	hrs	Client Info		5780	5414	5053
Oil Age	hrs	Client Info		300	400	593
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>875	317	646	422
Chromium	ppm	ASTM D5185m	>20	5	6	4
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m	>10	<1	0	0
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	0	0	2
Lead	ppm	ASTM D5185m	>15	<1	<1	3
Copper	ppm	ASTM D5185m	>65	3	3	3
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	MODER	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

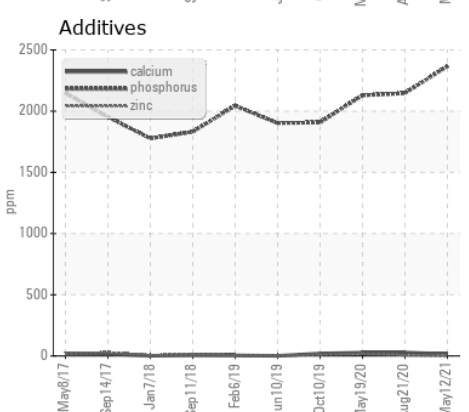
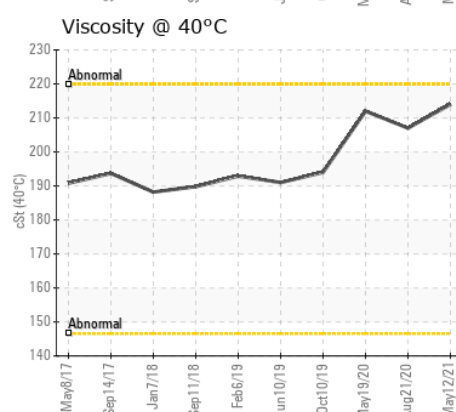
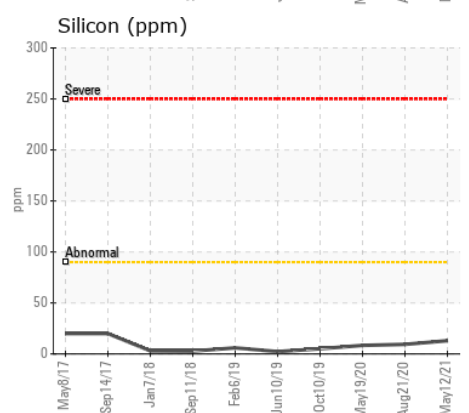
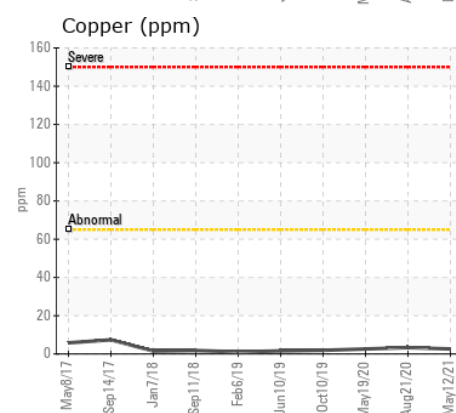
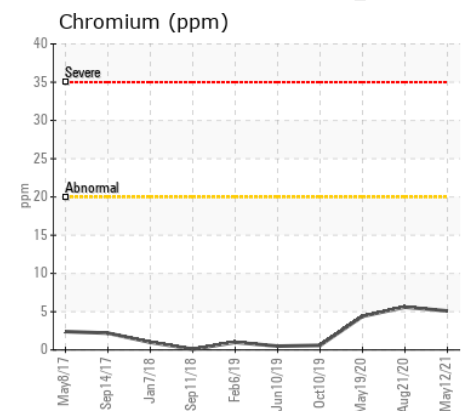
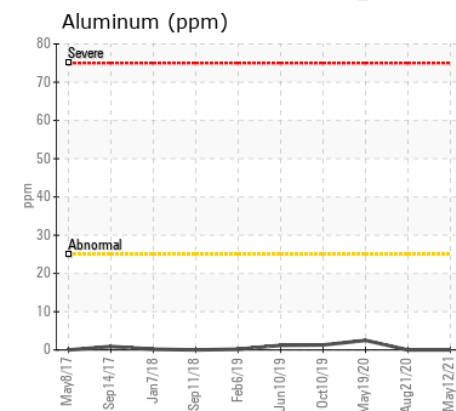
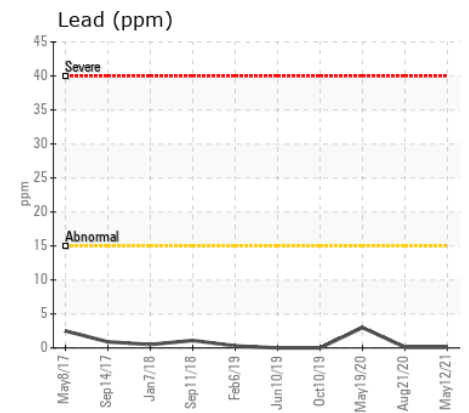
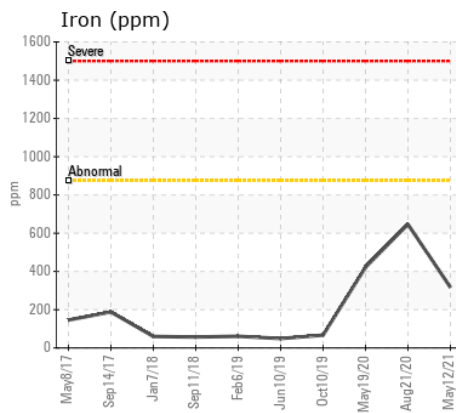
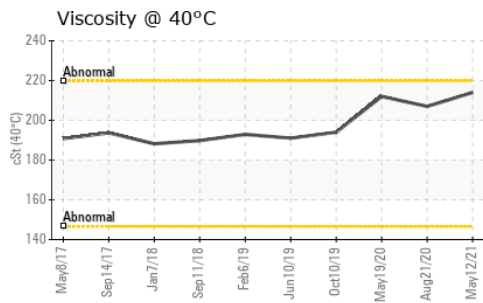
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>90	13	9	8
Potassium	ppm	ASTM D5185m	>20	<1	<1	12
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	LIGHT
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		4	5	5
Boron	ppm	ASTM D5185m		3	4	3
Barium	ppm	ASTM D5185m		<1	<1	0
Molybdenum	ppm	ASTM D5185m		59	146	106
Manganese	ppm	ASTM D5185m		3	7	5
Magnesium	ppm	ASTM D5185m		<1	2	1
Calcium	ppm	ASTM D5185m		16	28	27
Phosphorus	ppm	ASTM D5185m		2366	2146	2129
Zinc	ppm	ASTM D5185m		0	5	17
Sulfur	ppm	ASTM D5185m		23019	23135	23555
Visc @ 40°C	cSt	ASTM D445		214	207	212



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0174412
Lab Number : 05281456
Unique Number : 9545389
Test Package : MOBCE

JOHNSON BROTHERS PAVING
 1924 N MAIN ST
 LILLINGTON, NC
 US 27546
 Contact: SEAN

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: