

LIEBHERR

CONSTRUCTION EQUIPMENT



054454-194 - Swing Drive

Sample No: LHMC123416

Oil Type: LIEBHERR GEAR BASIC 90 LS



SAMPLE INFORMATION

Sample Number	LHMC123416	LHMC96955	LHMC72744	LHMC73041
Sample Date	09 Jan 2020	26 Apr 2018	08 Feb 2017	16 May 2016
Machine Hours	3409	2587	1682	986
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	N/A
Sample Status	SEVERE	ABNORMAL	ABNORMAL	NORMAL

UNITED STATES GYPSUM
 301 RILEY RD
 EAST CHICAGO, IN
 US 43612
 Contact: Service Manager



OIL CONDITION

Visc @ 40°C	cSt	222	130.4	148.5	143.7
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T:
F:



CONTAMINATION

Water	%	0.404	0.329	0.824	0.140
Silicon	ppm	0	5	7	2
Sodium	ppm	2	1	1	3
Potassium	ppm	<1	10	10	6

Diagnosis

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is a moderate concentration of water present in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	2882	1858	1309	409
Copper	ppm	710	361	118	52
Lead	ppm	<1	0	0	<1
Tin	ppm	8	0	0	6
Aluminum	ppm	<1	<1	4	<1
Chromium	ppm	36	21	15	4
Molybdenum	ppm	0	0	0	0
Nickel	ppm	11	7	4	1
Titanium	ppm	<1	0	<1	0
Silver	ppm	0	0	<1	0
Manganese	ppm	18	8	8	3
Vanadium	ppm	<1	<1	<1	0



ADDITIVES

Calcium	ppm	19	10	22	12
Magnesium	ppm	<1	0	<1	<1
Zinc	ppm	29	27	30	16
Phosphorus	ppm	1778	1443	1817	1862
Barium	ppm	0	0	0	<1
Boron	ppm	84	123	195	202

Depot: UNIEASLH
 Unique No: 8883926
 Signed: Don Baldrige
 Report Date: 16 Jan 2020



GRAPHS

