

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR 1205-90726 - Hydraulic System

Sample No: LHMC124055

Oil Type: NOT GIVEN



KINDER MORGAN-BERKELEY
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SAMPLE INFORMATION

Sample Number	LHMC124055	LHMC124061	LHMC119870	LHMC124079
Sample Date	30 Jul 2018	27 Jun 2018	10 Apr 2018	15 Mar 2018
Machine Hours	4605	4112	2853	2363
Oil Hours	2242	1749	490	2363
Oil Changed	Changed	Not Changd	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 40°C	cSt	47.03	46.51	45.59	45.88
Acid Number (AN)	mg KOH/g	0.877	0.895	1.051	0.841



CONTAMINATION

Particles >4µm		1425	316	11446	4320
Particles >6µm		137	69	2589	1104
Particles >14µm		6	4	195	95
ISO 4406:1999 (c)		18/14/10	15/13/9	21/19/15	19/17/14
Silicon	ppm	5	5	4	4
Sodium	ppm	4	4	3	3
Potassium	ppm	2	0	1	1



WEAR METALS

Iron	ppm	91	62	26	17
Copper	ppm	9	7	5	4
Lead	ppm	<1	0	<1	<1
Tin	ppm	0	0	0	<1
Aluminum	ppm	1	1	<1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	5	5	3	4
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	2	1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1493	1337	1384	1433
Magnesium	ppm	67	65	46	48
Zinc	ppm	739	677	659	661
Phosphorus	ppm	578	523	570	585
Barium	ppm	0	0	0	0
Boron	ppm	11	8	8	6

Diagnosis

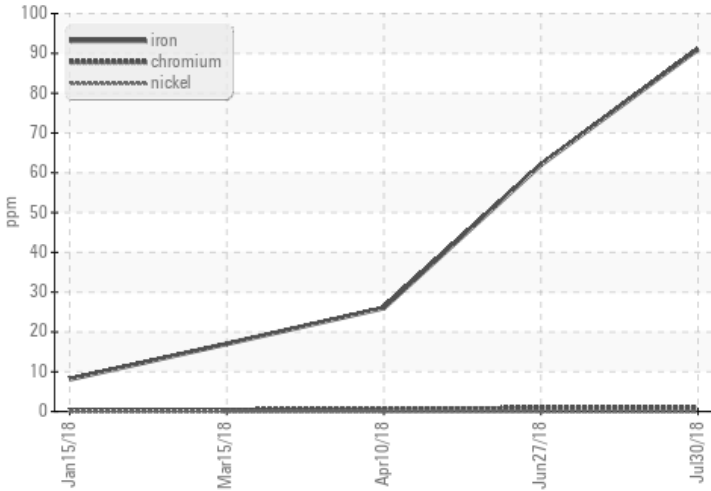
No corrective action is recommended at this time. We recommend an early resample to monitor this condition. The iron level is abnormal. All other component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: KINHUG
 Unique No: 8300848
 Signed: Don Baldrige
 Report Date: 16 Aug 2018

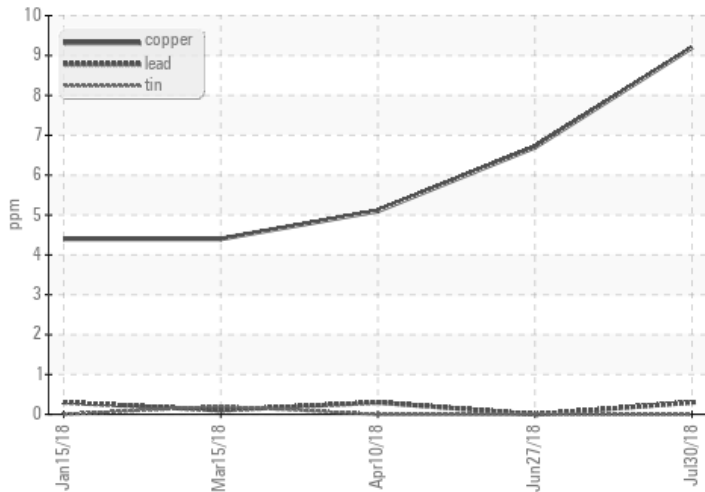


GRAPHS

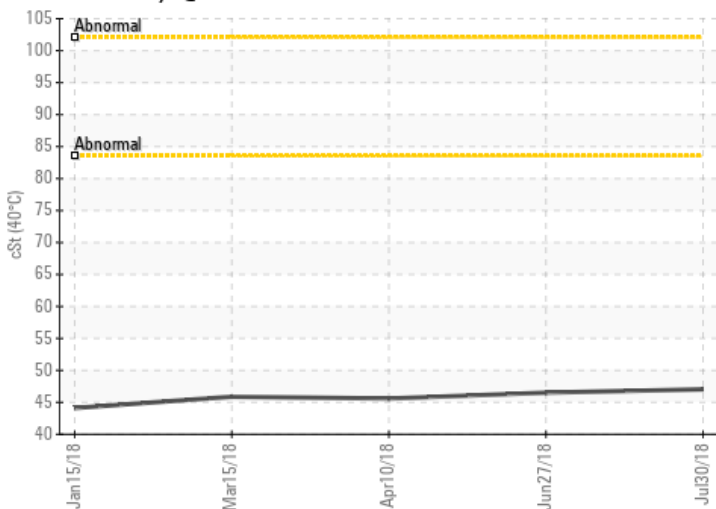
● Ferrous Alloys



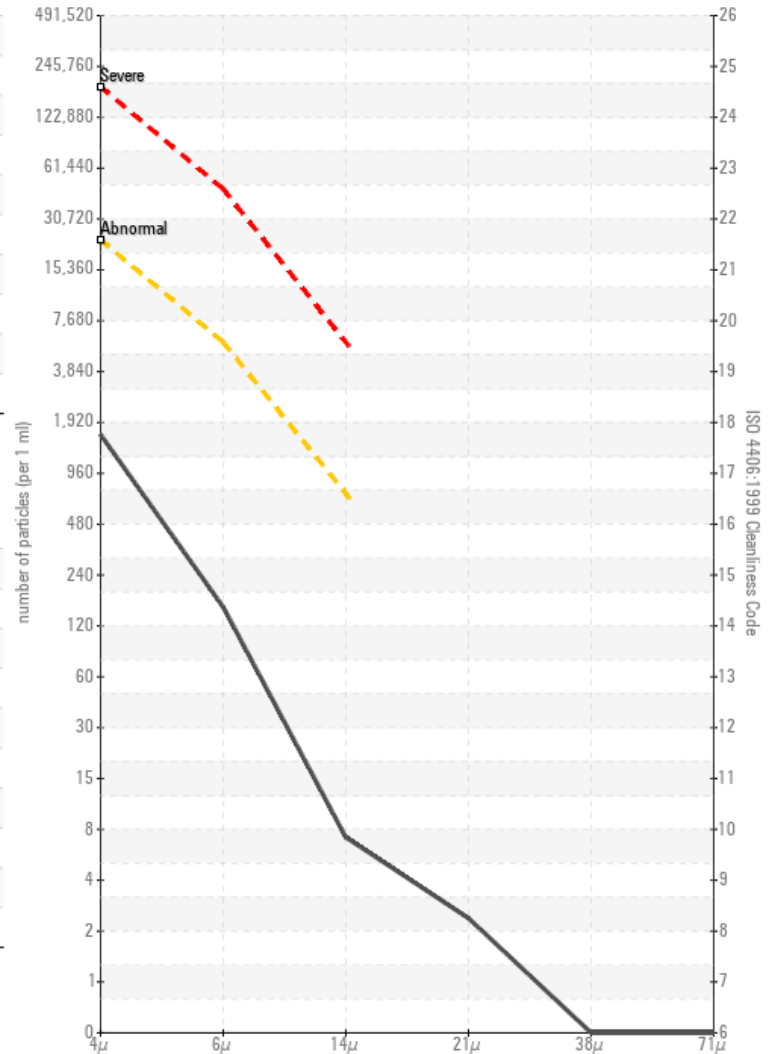
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

