

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH110 155976-1227 - Swing Drive

Sample No: LH0267553

Oil Type: SAE 30W



KINDER MORGAN

4301 IVERSON

TRINITY, AL

US 35601

Contact: RICKY JOHNSON

ricky_johnson@kindermorgan.com

T:

F: (256)355-5250



Sample Information

Sample Number	LH0267553	LH0267530	LH0280575	LH0280564
Sample Date	12 May 2024	18 Apr 2024	23 Feb 2024	30 Jan 2024
Machine Hours	1951	1623	995	534
Oil Hours	956	628	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	ATTENTION	ATTENTION	NORMAL	NORMAL



Oil Condition

Visc @ 40°C	cSt	108	112	182	182



Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	5	2	7	5
Sodium	ppm	4	0	3	0
Potassium	ppm	2	<1	2	2



Wear Metals

Iron	ppm	106	70	242	228
Copper	ppm	81	37	108	76
Lead	ppm	<1	0	<1	0
Tin	ppm	2	<1	8	4
Aluminum	ppm	2	<1	2	2
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	6	1	0	0
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	<1	<1	2	1
Vanadium	ppm	<1	0	0	0



Additives

Calcium	ppm	422	197	54	50
Magnesium	ppm	29	6	2	<1
Zinc	ppm	243	119	33	6
Phosphorus	ppm	621	457	2364	1912
Barium	ppm	0	0	2	8
Boron	ppm	18	0	5	7

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: KINTRI

Unique No: 11049356

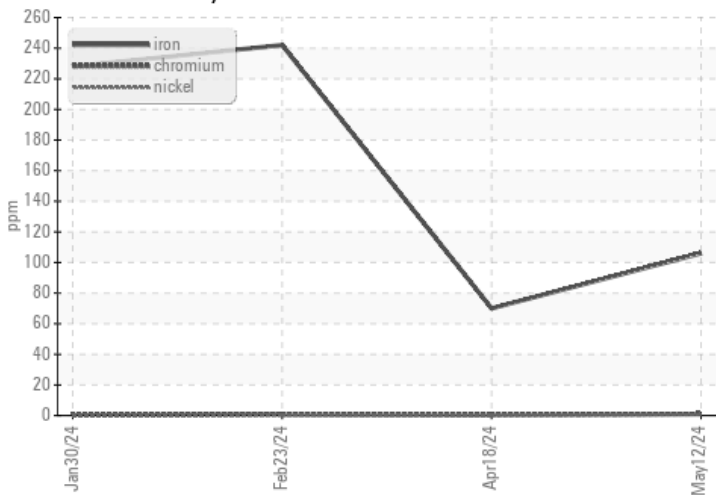
Signed: Don Baldrige

Report Date: 30 May 2024

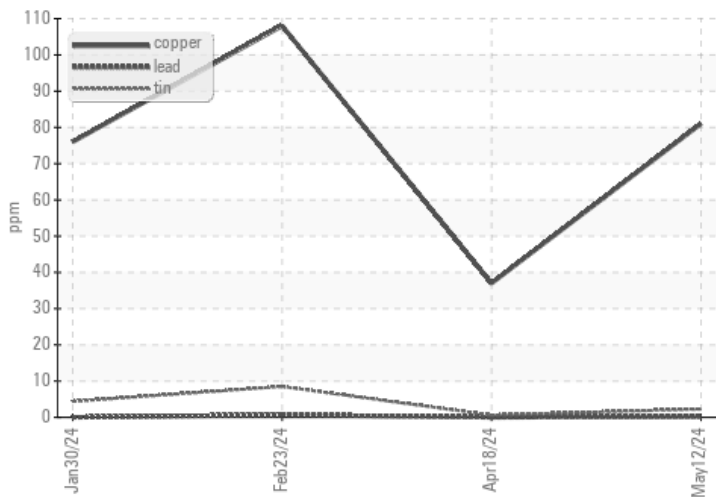


Graphs

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

