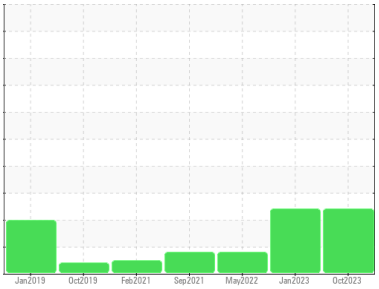
PROBLEM SUMMARY

Area
TMR-Tampa Berth
Machine Id
LIEBHERR LH80C 1529-107532
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 68 (100 GAL)

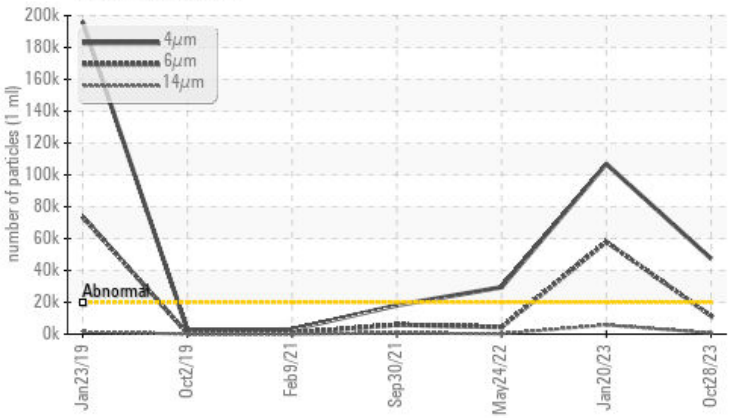
Sample Rating Trend



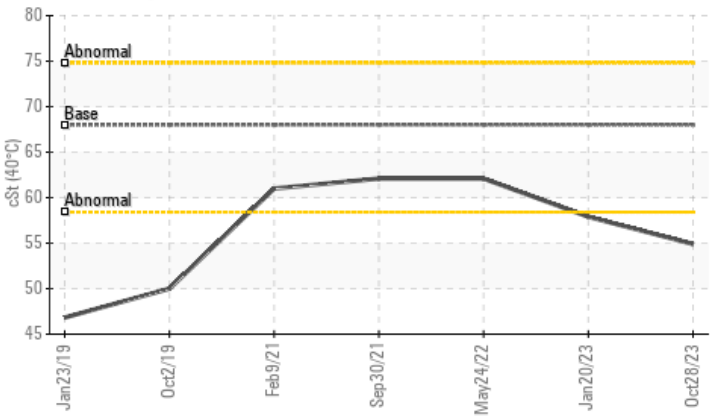
VISCOSITY

COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Viscosity @ 40°C



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION
Particles >4µm		ASTM D7647	>20000	▲ **47428**	▲ 106880	▲ 29488
Particles >6µm		ASTM D7647	>5000	▲ **11537**	▲ 57925	4470
Particles >14µm		ASTM D7647	>640	▲ **732**	▲ 5766	220
Particles >21µm		ASTM D7647	>160	▲ **171**	▲ 876	35
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/21/17**	▲ 24/23/20	▲ 22/19/15
Visc @ 40°C	cSt	ASTM D445	68	▲ **54.9**	▲ 57.9	62.1

Customer Id: TRATAM3310
Sample No.: DJJ0008586
Lab Number: 05996641
Test Package: MOBCE

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

20 Jan 2023 Diag: Don Baldridge

VISCOSITY

No corrective action is recommended at this time. The filter 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 a high amount of particulates present in the oil. The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

view report

24 May 2022 Diag: Don Baldridge

ISO

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

30 Sep 2021 Diag: Jonathan Hester

ISO

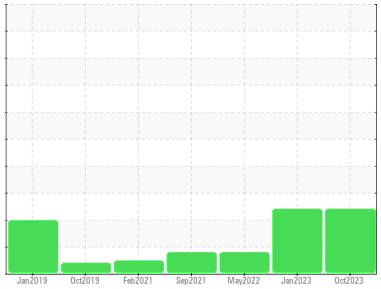
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
TMR-Tampa Berth
Machine Id
LIEBHERR LH80C 1529-107532
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 68 (100 GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil.

Fluid Condition
The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**DJJ0008586**	DJJ0008197	DJJ0008296
Sample Date		Client Info		**28 Oct 2023**	20 Jan 2023	24 May 2022
Machine Age	hrs	Client Info		**8225**	0	0
Oil Age	hrs	Client Info		**0**	1000	0
Oil Changed		Client Info		**N/A**	Not Changd	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**14**	24	11
Chromium	ppm	ASTM D5185m	>15	**2**	2	2
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>8	**<1**	<1	<1
Lead	ppm	ASTM D5185m	>5	**<1**	<1	<1
Copper	ppm	ASTM D5185m	>15	**4**	4	3
Tin	ppm	ASTM D5185m	>5	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**3**	0	<1
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**3**	1	<1
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	25	**24**	6	4
Calcium	ppm	ASTM D5185m	200	**150**	49	100
Phosphorus	ppm	ASTM D5185m	300	**301**	294	333
Zinc	ppm	ASTM D5185m	370	**380**	357	416
Sulfur	ppm	ASTM D5185m	2500	**1418**	1145	887

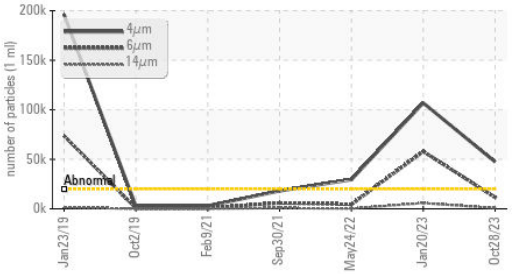
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**2**	1	1
Sodium	ppm	ASTM D5185m		**0**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**1**	<1	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **47428**	▲ 106880	▲ 29488
Particles >6µm		ASTM D7647	>5000	▲ **11537**	▲ 57925	4470
Particles >14µm		ASTM D7647	>640	▲ **732**	▲ 5766	220
Particles >21µm		ASTM D7647	>160	▲ **171**	▲ 876	35
Particles >38µm		ASTM D7647	>40	**2**	8	1
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/21/17**	▲ 24/23/20	▲ 22/19/15

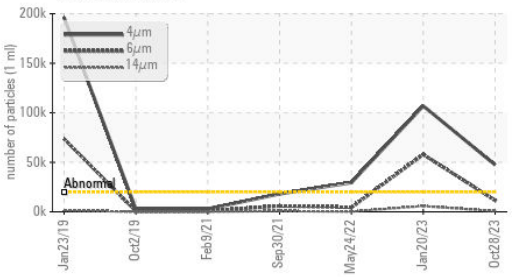
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.40**	0.42	0.41

OIL ANALYSIS REPORT

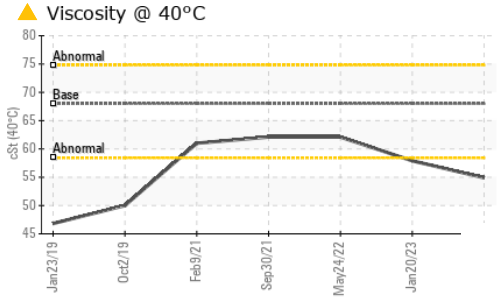
Particle Trend



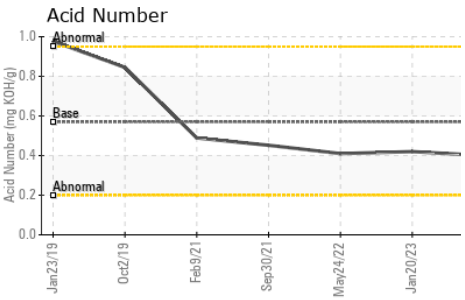
Particle Trend



Viscosity @ 40°C

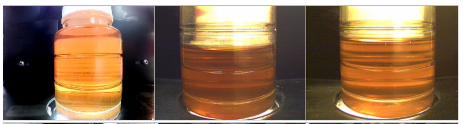
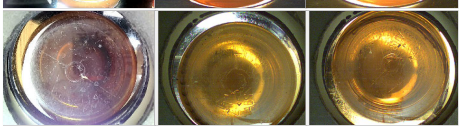


Acid Number



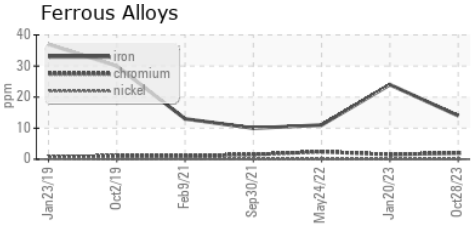
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	▲ **54.9**	▲ 57.9	62.1

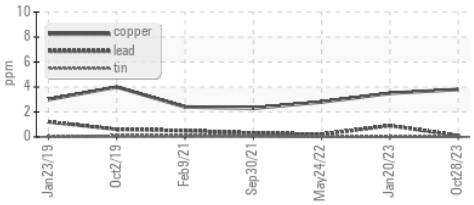
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

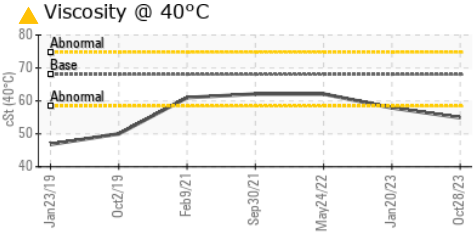
Ferrous Alloys



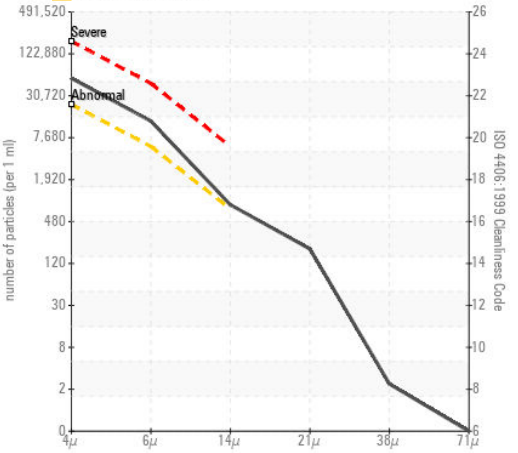
Non-ferrous Metals



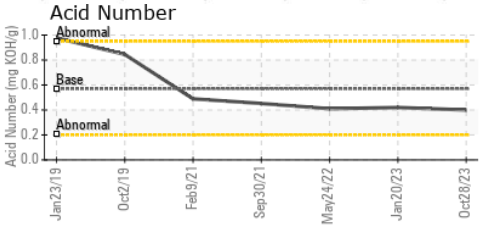
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0008586
Lab Number : 05996641
Unique Number : 10725001
Test Package : MOBCE

Received : 02 Nov 2023
Diagnosed : 04 Nov 2023
Diagnostician : Don Baldridge

TRADEMARK METALS RECYCLING - TAMPA BERTH
3310 PORT SUTTON RD
TAMPA, FL
US 33619
Contact: RYAN BOWDEN

T:
F:

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)