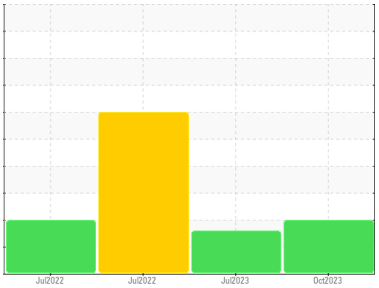
PROBLEM SUMMARY

Sample Rating Trend

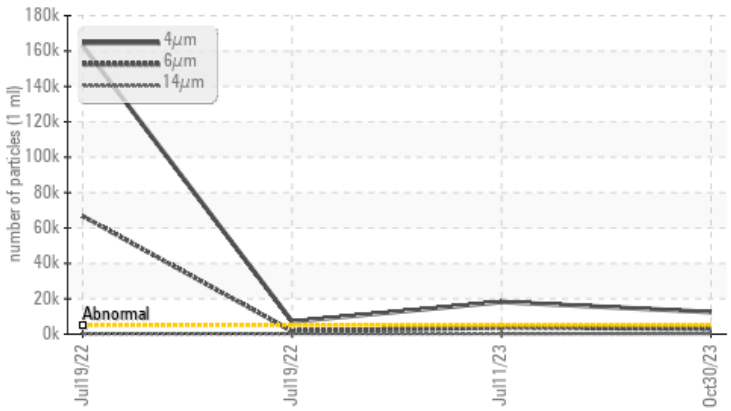


ISO

Area
Preparation-Prep EB CALENDAR
Machine Id
[Preparation-Prep EB CALENDAR] 360014005 - EB CALENDAR MAIN HYD UNIT
Component
Hydraulic System
Fluid
SHELL TELLUS S2 MX 46 (100 LTR)

COMPONENT CONDITION SUMMARY

Particle Trend



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	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **12460**	▲ 18190	▲ 163143
Particles >6µm		ASTM D7647	>1300	▲ **2948**	▲ 3737	▲ 66700
Particles >14µm		ASTM D7647	>160	▲ **265**	▲ 187	130
Particles >21µm		ASTM D7647	>40	▲ **57**	36	17
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/19/15**	▲ 21/19/15	▲ 25/23/14

Customer Id: MICAND
Sample No.: TLC0001118
Lab Number: 05997913
Test Package: PLANT

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

11 Jul 2023 Diag: Doug Bogart

ISO

We recommend you service the filters on this component. 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

19 Jul 2022 Diag: Jonathan Hester

DIRT

We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition.The iron level is abnormal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

view report

19 Jul 2022 Diag: Jonathan Hester

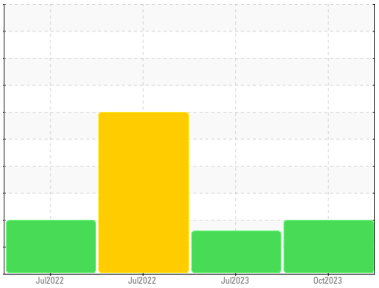
ISO

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 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

Sample Rating Trend



ISO

Area
Preparation-Prep EB CALENDAR
Machine Id
[Preparation-Prep EB CALENDAR] 360014005 - EB CALENDAR MAIN HYD UNIT
Component
Hydraulic System
Fluid
SHELL TELLUS S2 MX 46 (100 LTR)

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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TLC0001118**	TLC0001301	TLC0000817
Sample Date		Client Info		**30 Oct 2023**	11 Jul 2023	19 Jul 2022
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**0**	0	▲ 27
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	<1
Lead	ppm	ASTM D5185m	>20	**11**	2	<1
Copper	ppm	ASTM D5185m	>20	**2**	2	2
Tin	ppm	ASTM D5185m	>20	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	6
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m	0	**0**	0	<1
Magnesium	ppm	ASTM D5185m	70	**49**	50	▲ 1
Calcium	ppm	ASTM D5185m	10	**10**	9	▲ 4
Phosphorus	ppm	ASTM D5185m	300	**242**	258	▲ 273
Zinc	ppm	ASTM D5185m	325	**280**	288	▲ 22
Sulfur	ppm	ASTM D5185m	665	**641**	787	▲ 14473

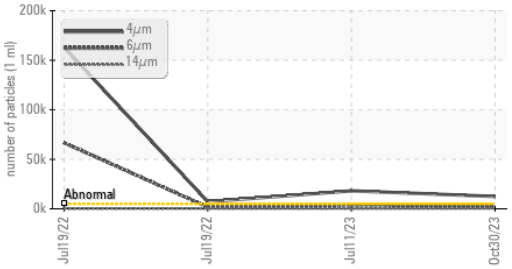
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	<1	▲ 15
Sodium	ppm	ASTM D5185m		**<1**	2	<1
Potassium	ppm	ASTM D5185m	>20	**0**	3	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **12460**	▲ 18190	▲ 163143
Particles >6µm		ASTM D7647	>1300	▲ **2948**	▲ 3737	▲ 66700
Particles >14µm		ASTM D7647	>160	▲ **265**	▲ 187	130
Particles >21µm		ASTM D7647	>40	▲ **57**	36	17
Particles >38µm		ASTM D7647	>10	**1**	1	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/19/15**	▲ 21/19/15	▲ 25/23/14

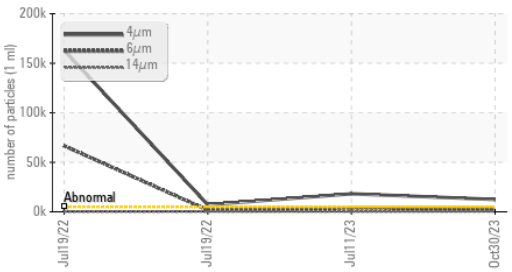
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.35	**0.23**	0.30	0.50

OIL ANALYSIS REPORT

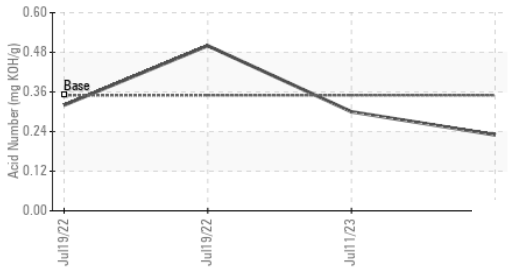
Particle Trend



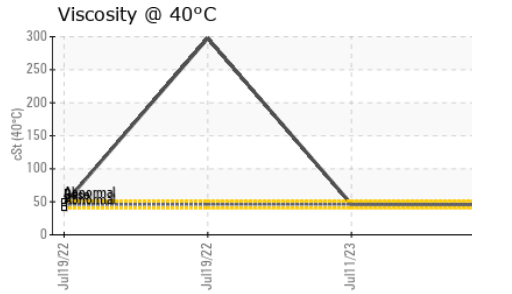
Particle Trend



Acid Number

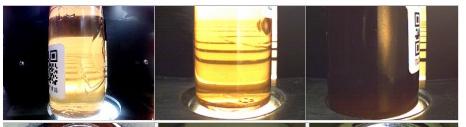
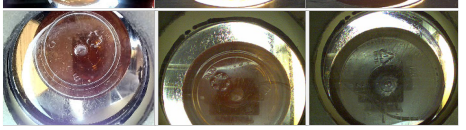


Viscosity @ 40°C



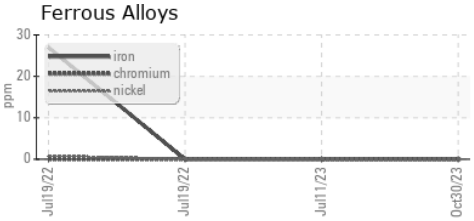
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	**45.8**	46.4	▲ 297.6

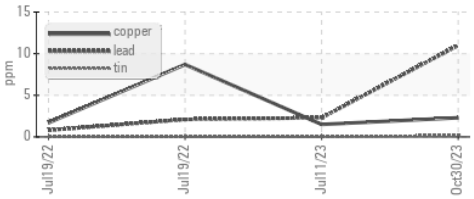
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

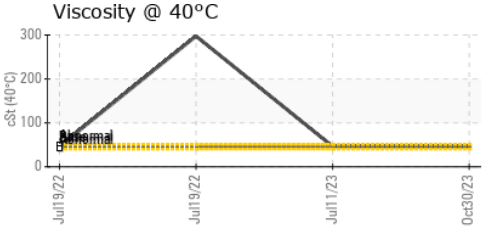
Ferrous Alloys



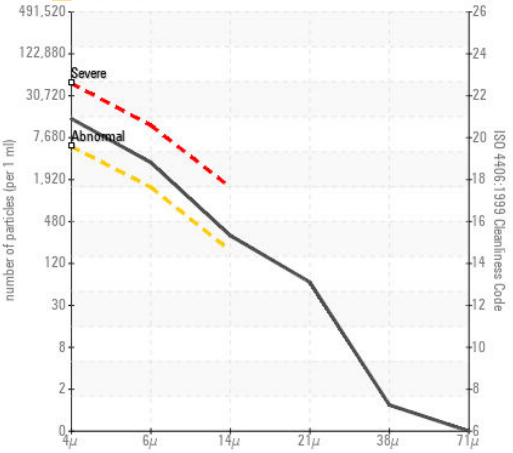
Non-ferrous Metals



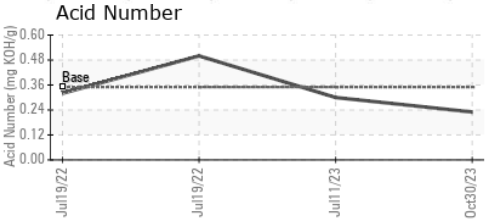
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TLC0001118
Lab Number : 05997913
Unique Number : 10726273
Test Package : PLANT

Received : 03 Nov 2023
Diagnosed : 06 Nov 2023
Diagnostician : Don Baldridge

Certificate L2367

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)

MICHELIN US 10
16 BIBB WAY
ANDERSON, SC
US 29626
Contact: TERRICK PRESLEY
terrick.presley@michelin.com
T: (803)761-8053
F:

Report Id: MICAND [WUSCAR] 05997913 (Generated: 11/06/2023 18:09:00) Rev: 1

Submitted By: TERRICK PRESLEY