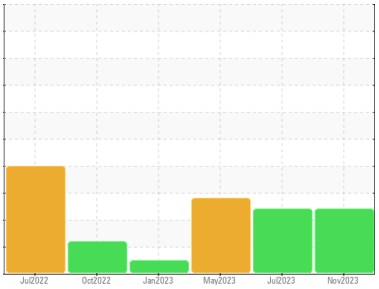
PROBLEM SUMMARY

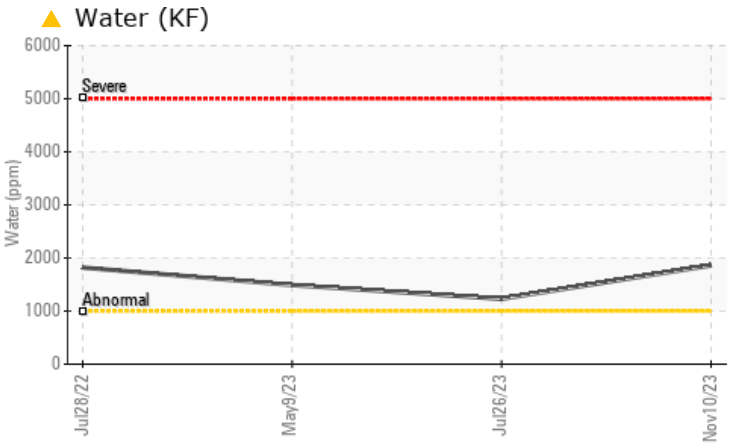
Area
88-30
Machine Id
DMG Vac Pump #1 SC009938
Component
Vacuum Pump
Fluid
NOT GIVEN (--- GAL)

Sample Rating Trend



WATER

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ATTENTION	ABNORMAL
Water	%	ASTM D6304	>.1	▲ **0.186**	▲ 0.123	▲ 0.149
ppm Water	ppm	ASTM D6304	>1000	▲ **1860**	▲ 1230	▲ 1490
Appearance	scalar	*Visual	NORML	▲ **HAZY**	▲ HAZY	▲ HAZY

Customer Id: BOENOR
Sample No.: WC0845493
Lab Number: 06014126
Test Package: PLANT

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

26 Jul 2023 Diag: Jonathan Hester

WATER

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Appearance is hazy. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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09 May 2023 Diag: Jonathan Hester

WATER

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. Appearance is hazy. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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26 Jan 2023 Diag: Jonathan Hester

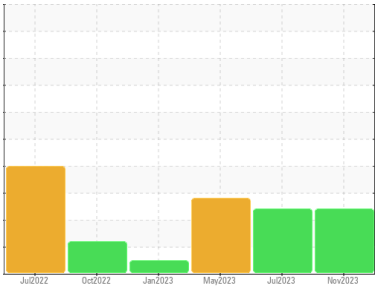
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
88-30
Machine Id
DMG Vac Pump #1 SC009938
Component
Vacuum Pump
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

▲ Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

▲ Contamination
Appearance is hazy. There is a light concentration of water 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		**WC0845493**	WC0770352	WC0770343
Sample Date		Client Info		**10 Nov 2023**	26 Jul 2023	09 May 2023
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				**ATTENTION**	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**13**	8	---
Iron	ppm	ASTM D5185m	>20	**2**	1	3
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**<1**	<1	2
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	0	0
Tin	ppm	ASTM D5185m	>20	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

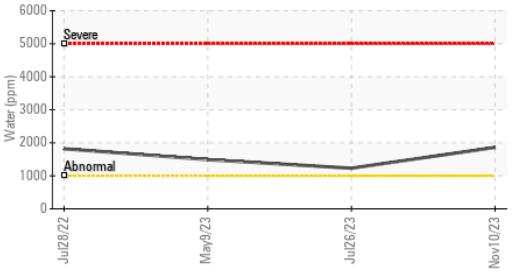
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	2
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**0**	0	<1
Calcium	ppm	ASTM D5185m		**1**	0	1
Phosphorus	ppm	ASTM D5185m		**111**	120	110
Zinc	ppm	ASTM D5185m		**0**	11	14
Sulfur	ppm	ASTM D5185m		**312**	380	776

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	0	<1
Sodium	ppm	ASTM D5185m		**<1**	2	4
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1
Water	%	ASTM D6304	>.1	▲ **0.186**	▲ 0.123	▲ 0.149
ppm Water	ppm	ASTM D6304	>1000	▲ **1860**	▲ 1230	▲ 1490

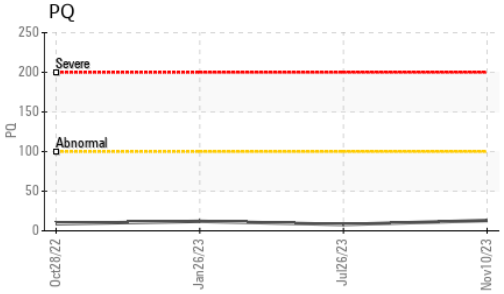
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.086**	0.16	0.14

OIL ANALYSIS REPORT

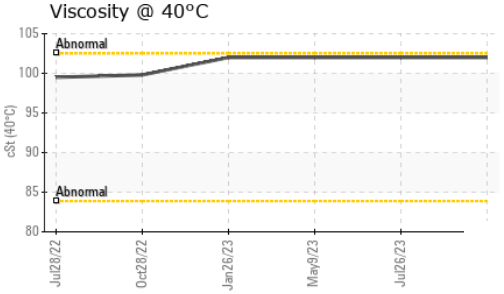
Water (KF)



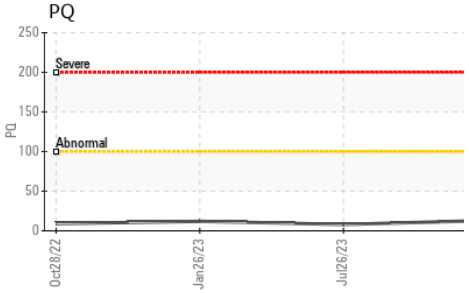
PQ



Viscosity @ 40°C

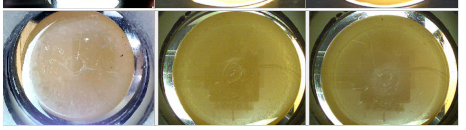


PQ



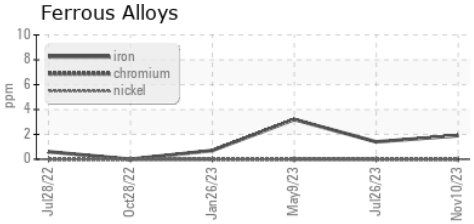
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **HAZY**	▲ HAZY	▲ HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	**0.2%**	▲ 0.2%	▲ 0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**102**	102	102

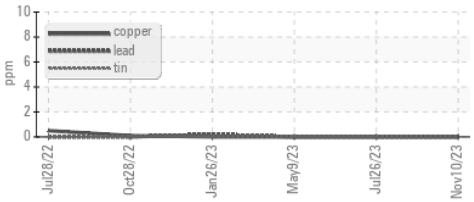
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

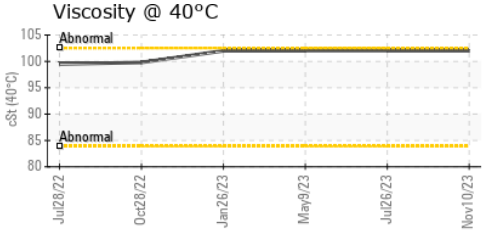
Ferrous Alloys



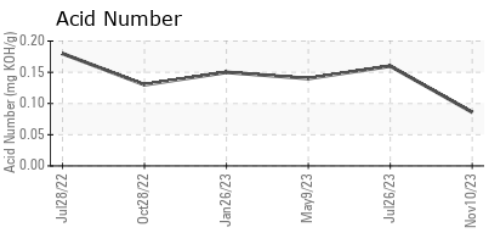
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0845493 **Received** : 21 Nov 2023
Lab Number : 06014126 **Diagnosed** : 24 Nov 2023
Unique Number : 10753270 **Diagnostician** : Doug Bogart
Test Package : PLANT

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)

THE BOEING COMPANY
5400 AIRFRAME DR
NORTH CHARLESTON, SC
US 29418
Contact: DAN HARRIS
DANIEL.R.HARRIS2@BOEING.COM
T: (843)730-0805
F:

Report Id: BOENOR [WUSCAR] 06014126 (Generated: 11/24/2023 11:06:28) Rev: 1

Submitted By: DAN HARRIS