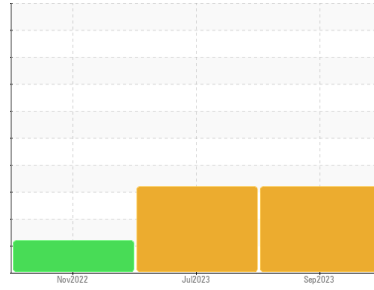




PROBLEM SUMMARY

Sample Rating Trend



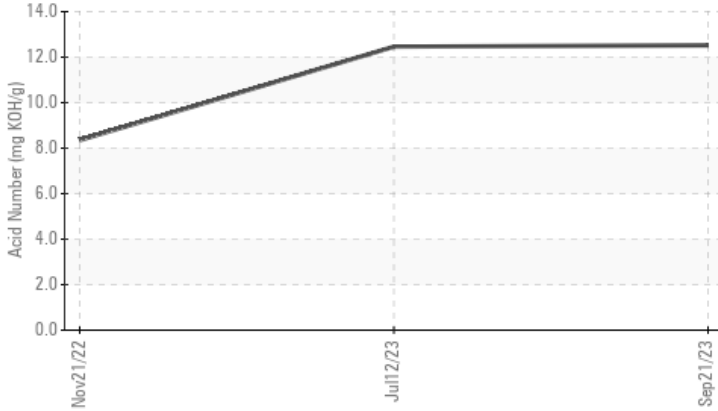
DEGRADATION



Machine Id
BIG BLUE HYDRAULIC UNIT
 Component
Hydraulic System
 Fluid
BENZ OIL ULTRA GUARD 552 (350 GAL)

COMPONENT CONDITION SUMMARY

Acid Number



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status		SEVERE	SEVERE	ATTENTION
Acid Number (AN)	mg KOH/g ASTM D8045	12.52	12.46	8.351
PrtFilter				

Customer Id: DEELIN
 Sample No.: PH0000294
 Lab Number: 05962209
 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

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

12 Jul 2023 Diag: Jonathan Hester

DEGRADATION



We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit.

view report



21 Nov 2022 Diag: Angela Borella

DEGRADATION



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. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit.

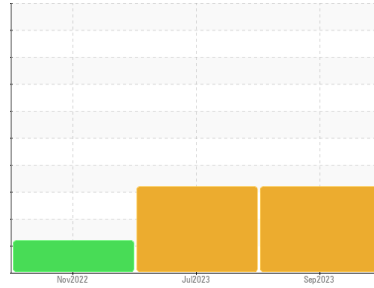
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id BIG BLUE HYDRAULIC UNIT

Component
Hydraulic System

Fluid
BENZ OIL ULTRA GUARD 552 (350 GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is above the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PH0000294	PH0000212	PH0000219
Sample Date	Client Info			21 Sep 2023	12 Jul 2023	21 Nov 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		12124	11092	16960
Oil Changed	Client Info			Filtered	Filtered	Filtered
Sample Status				SEVERE	SEVERE	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	8	8	6
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	1	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	<1
Lead	ppm	ASTM D5185m	>20	0	<1	0
Copper	ppm	ASTM D5185m	>20	6	7	2
Tin	ppm	ASTM D5185m	>20	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		<1	1	3
Calcium	ppm	ASTM D5185m		6	2	6
Phosphorus	ppm	ASTM D5185m		270	289	294
Zinc	ppm	ASTM D5185m		7	11	8
Sulfur	ppm	ASTM D5185m		1213	969	1436

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	3	3	2
Sodium	ppm	ASTM D5185m		4	3	3
Potassium	ppm	ASTM D5185m	>20	<1	2	2

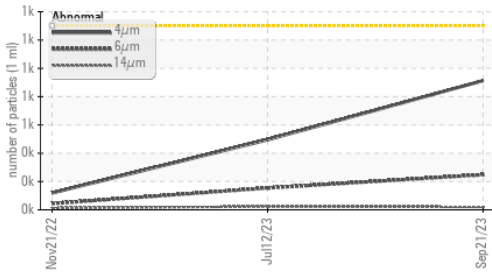
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	913	495	119
Particles >6µm		ASTM D7647	>320	248	154	44
Particles >14µm		ASTM D7647	>80	20	23	12
Particles >21µm		ASTM D7647	>20	6	7	7
Particles >38µm		ASTM D7647	>4	1	0	1
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>17/15/13	17/15/11	16/14/12	14/13/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		12.52	12.46	8.351

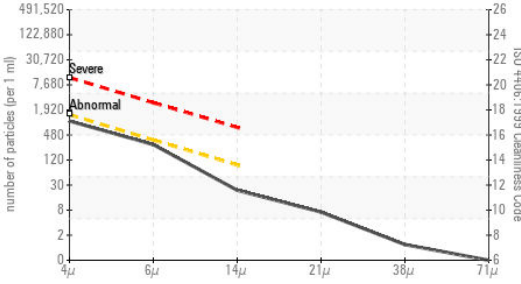


OIL ANALYSIS REPORT

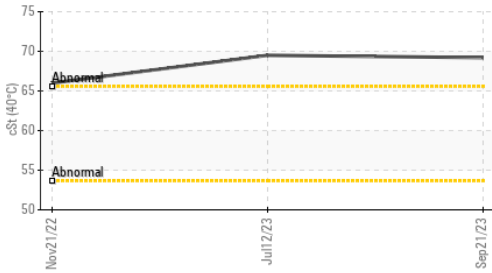
Particle Trend



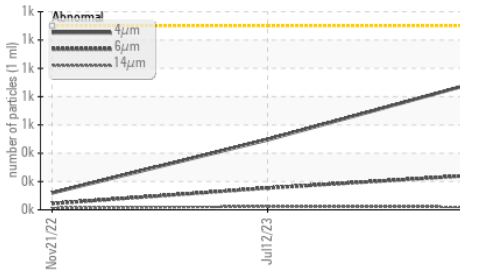
Particle Count



Viscosity @ 40°C



Particle Trend



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

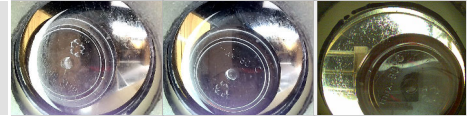
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	69.2	69.5	66.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color



Bottom

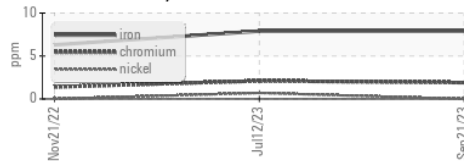


PrtFilter

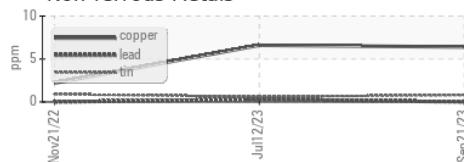


GRAPHS

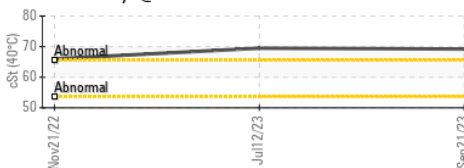
Ferrous Alloys



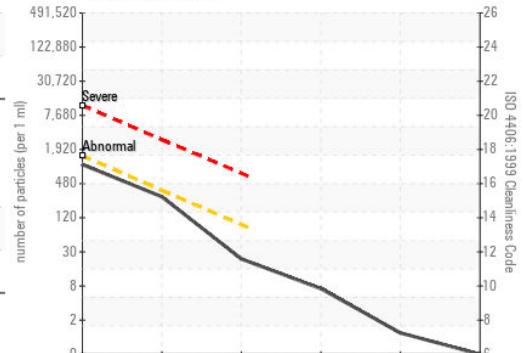
Non-ferrous Metals



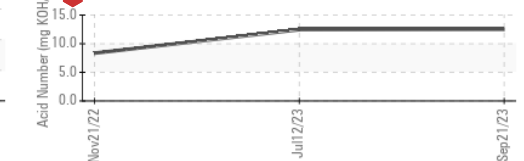
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH0000294 **Received** : 27 Sep 2023
Lab Number : 05962209 **Diagnosed** : 28 Sep 2023
Unique Number : 10668760 **Diagnostician** : Doug Bogart
Test Package : PLANT

DEETER FOUNDRY
 5945 N 70TH ST
 LINCOLN, NE
 US 68507

Contact: BRANDON KUHNKE
 brandon.kuhnke@groupnei.com
 T: (402)464-7466

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)