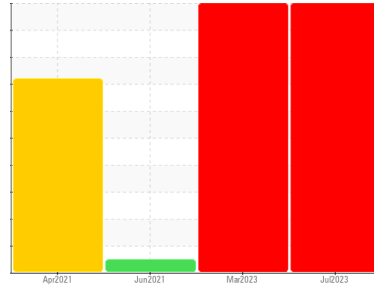


# PROBLEM SUMMARY

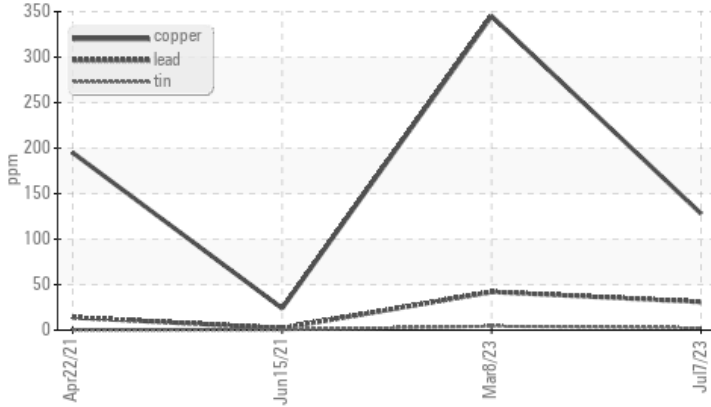
Sample Rating Trend



Machine Id  
**TWIN\_U2 TWIN\_U2\_P2**  
 Component  
**Drive End Pump**  
 Fluid  
**ROYAL PURPLE SYNFILM GT 32 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### Non-ferrous Metals



## RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	NORMAL
Lead	ppm	ASTM D5185m	>12	<b>31</b>	42	2
Copper	ppm	ASTM D5185m	>30	<b>128</b>	345	24

Customer Id: ENEASTPA  
 Sample No.: RP0033007  
 Lab Number: 05898670  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

### 08 Mar 2023 Diag: Don Baldrige

#### WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The copper and lead levels are severe. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.

view report



### 15 Jun 2021 Diag: Angela Borella

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

view report



### 22 Apr 2021 Diag: Angela Borella

#### WEAR



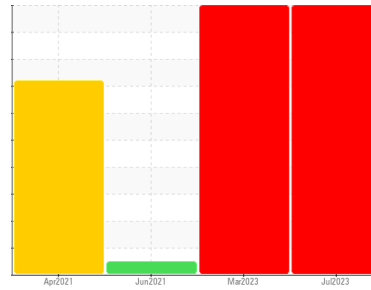
We advise that you check all areas where contaminants can enter the system. We advise that you inspect for the source(s) of wear. Copper and lead ppm levels are abnormal. Bearing and/or bushing wear is indicated. Moderate concentration of visible dirt/debris present in the oil. The water content is negligible. The AN level is acceptable for this fluid.

view report



# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**TWIN\_U2 TWIN\_U2\_P2**  
 Component  
**Drive End Pump**  
 Fluid  
**ROYAL PURPLE SYNFILM GT 32 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

**Wear**

Bearing and/or bushing wear is indicated.

**Contamination**

The water content is negligible. There is no indication of any contamination in the oil.

**Fluid Condition**

The AN level is acceptable for this fluid.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RP0033007</b>	RP0034754	RP0011513
Sample Date	Client Info		<b>07 Jul 2023</b>	08 Mar 2023	15 Jun 2021
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	SEVERE	NORMAL

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	<b>4</b>	8	4
Chromium	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	1	0
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >7	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185m >12	<b>31</b>	42	2
Copper	ppm	ASTM D5185m >30	<b>128</b>	345	24
Tin	ppm	ASTM D5185m >9	<b>2</b>	4	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	10
Barium	ppm	ASTM D5185m	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	<b>66</b>	39	64
Calcium	ppm	ASTM D5185m	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m	<b>1</b>	3	6
Zinc	ppm	ASTM D5185m	<b>3</b>	7	17

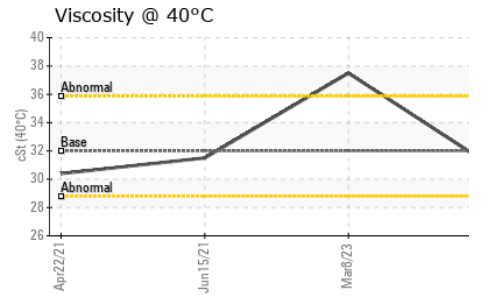
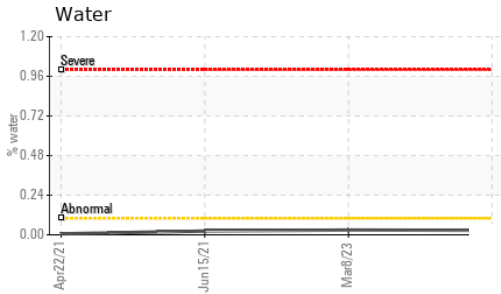
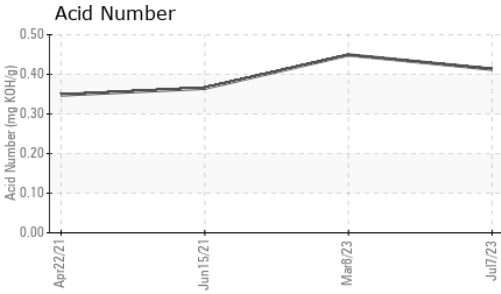
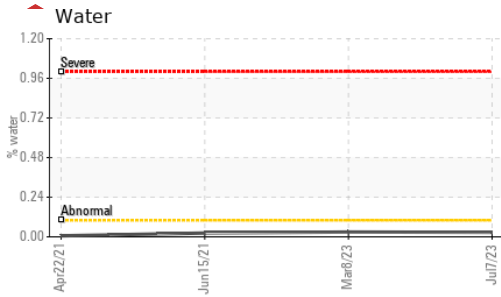
**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	<b>1</b>	2	<1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304	<b>0.027</b>	0.029	0.023
ppm Water	ppm	ASTM D6304 >.1	<b>273.2</b>	290.4	239.3

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.413</b>	0.449	0.365

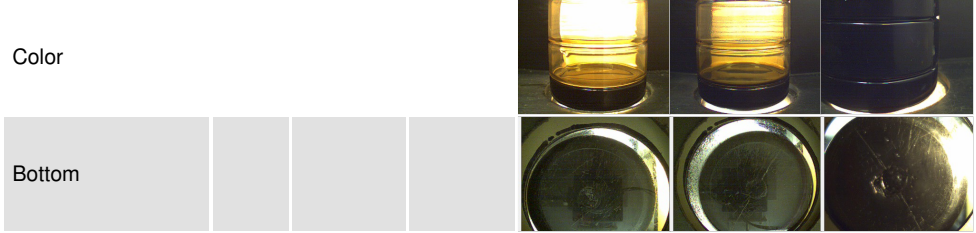
# OIL ANALYSIS REPORT



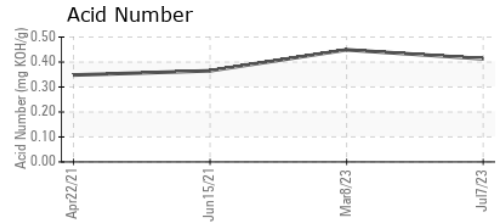
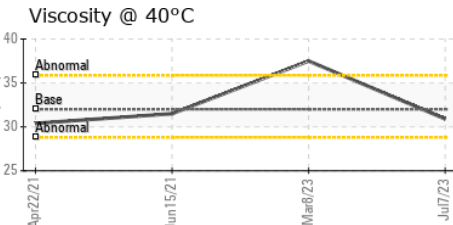
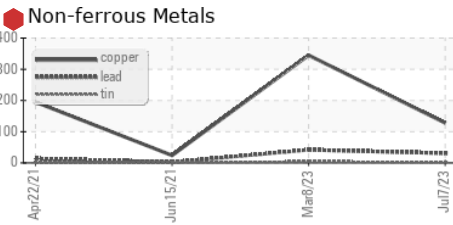
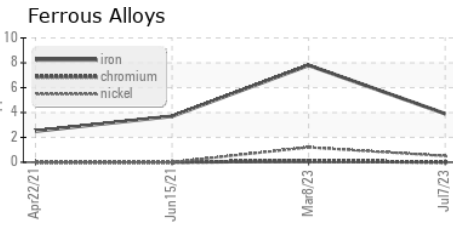
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 32	30.9	37.5	31.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0033007 **Received** : 14 Jul 2023  
**Lab Number** : 05898670 **Diagnosed** : 18 Jul 2023  
**Unique Number** : 10560026 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2

**ENERGY TRANSFER - TWIN OAKS**  
 144 CONCHESTER HIGHWAY  
 ASTON, PA  
 US 19014  
 Contact: QUITA MORGAN

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)

T: (610)220-8386

F: