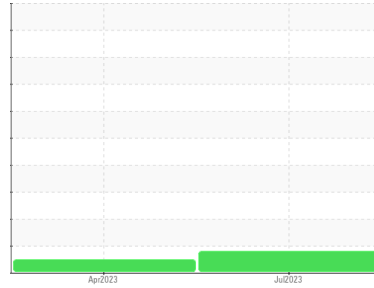


# PROBLEM SUMMARY

Sample Rating Trend

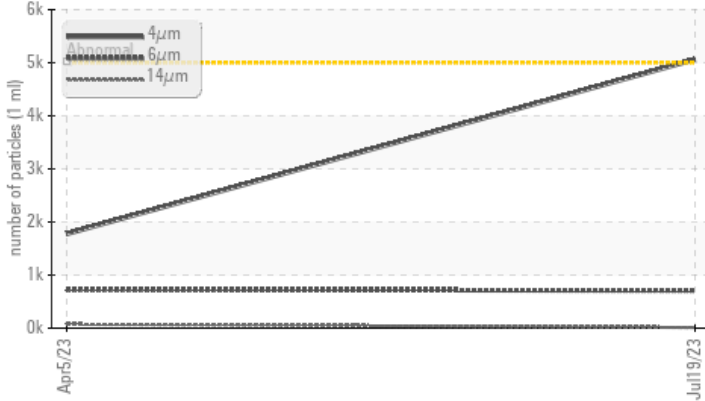
ISO

Area  
**4 CRDUE**  
Machine Id  
**[4 CRDUE] 4CRU-Z-0001 - ROYAL PURPLE 100 NO DYE**  
Component  
**New (Unused) Oil**  
Fluid  
**{not provided} (--- QTS)**



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

This is a baseline read-out on the submitted sample.

## PROBLEMATIC TEST RESULTS

Sample Status		ATTENTION	NORMAL	---
Particles >4µm	ASTM D7647 >5000	▲ 5059	1773	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 20/17/11	18/17/13	---

Customer Id: CALSHR  
Sample No.: RP0034817  
Lab Number: 05904717  
Test Package: IND 2



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](mailto:dougb@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

**05 Apr 2023 Diag: Jonathan Hester**

NORMAL



This is a baseline read-out on the submitted sample.

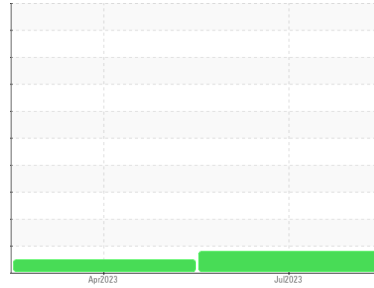
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

**4 CRDUE**

Machine Id

**[4 CRDUE] 4CRU-Z-0001 - ROYAL PURPLE 100 NO DYE**

Component

**New (Unused) Oil**

Fluid

{not provided} (--- QTS)

## DIAGNOSIS

### ▲ Recommendation

This is a baseline read-out on the submitted sample.

### ▲ Contamination

There is a high amount of silt (particulates < 6 microns in size) present in the oil.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RP0034817</b>	RP0031666	---
Sample Date	Client Info		<b>19 Jul 2023</b>	05 Apr 2023	---
Machine Age	hrs	Client Info	<b>0</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>Not Changed</b>	N/A	---
Sample Status			<b>ATTENTION</b>	NORMAL	---

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >5	<b>0</b>	0	---
Chromium	ppm	ASTM D5185m >5	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m >5	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	---
Lead	ppm	ASTM D5185m >5	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	---
Tin	ppm	ASTM D5185m >5	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>95</b>	64	---
Calcium	ppm	ASTM D5185m	<b>5</b>	<1	---
Phosphorus	ppm	ASTM D5185m	<b>1</b>	141	---
Zinc	ppm	ASTM D5185m	<b>0</b>	22	---

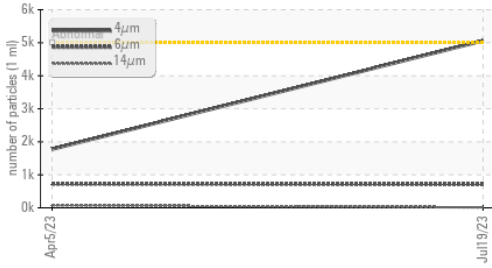
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>2</b>	2	---
Sodium	ppm	ASTM D5185m	<b>1</b>	<1	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	---
Water	%	ASTM D6304	<b>0.018</b>	0.023	---
ppm Water	ppm	ASTM D6304	<b>186.7</b>	238.2	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 5059</b>	1773	---
Particles >6µm	ASTM D7647	>1300	<b>709</b>	723	---
Particles >14µm	ASTM D7647	>160	<b>11</b>	73	---
Particles >21µm	ASTM D7647	>40	<b>1</b>	5	---
Particles >38µm	ASTM D7647	>10	<b>0</b>	1	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	1	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 20/17/11</b>	18/17/13	---

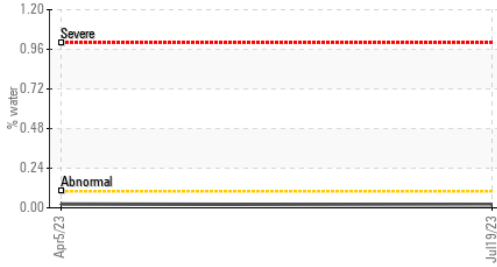
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.41</b>	0.36	---

# OIL ANALYSIS REPORT

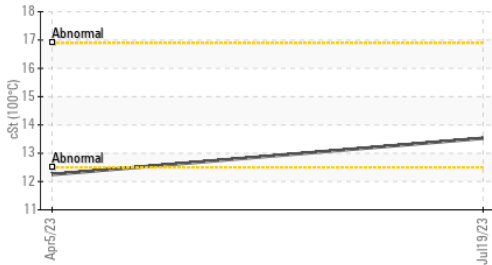
## Particle Trend



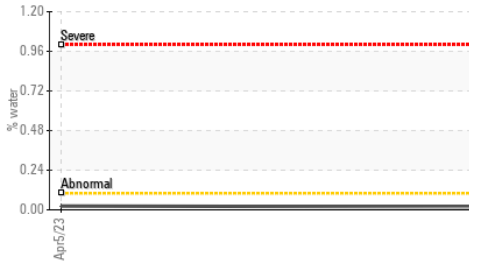
## Water



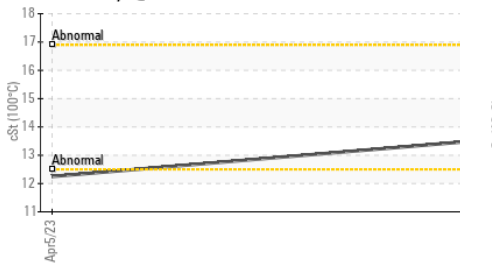
## Viscosity @ 100°C



## Water



## Viscosity @ 100°C



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	103.3	92.45	---
Visc @ 100°C	cSt	ASTM D445	13.53	12.25	---
Viscosity Index (VI)	Scale	ASTM D2270	130	126	---

## SAMPLE IMAGES

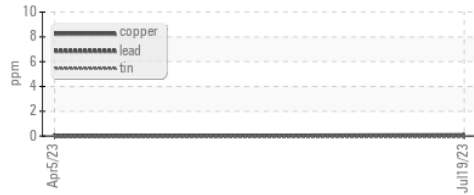


## GRAPHS

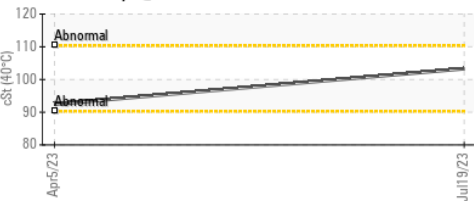
### Ferrous Alloys



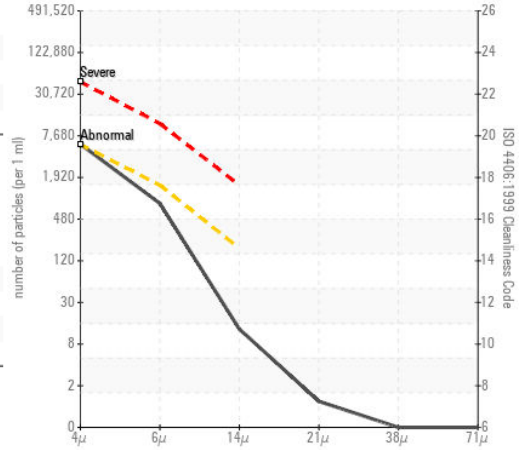
### Non-ferrous Metals



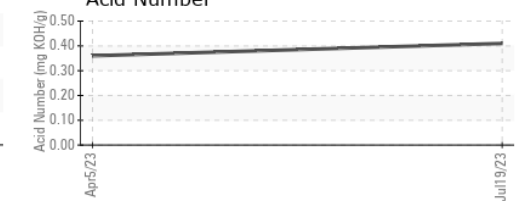
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0034817 **Received** : 21 Jul 2023  
**Lab Number** : 05904717 **Diagnosed** : 02 Aug 2023  
**Unique Number** : 10566073 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: FT-IR, KV100, PrtCount, VI )

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)

**CALUMET**  
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