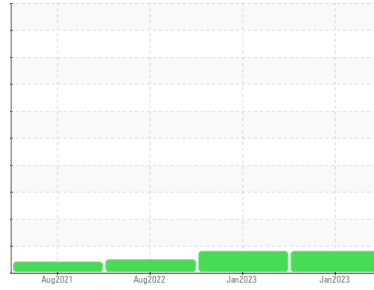




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id

## TK-BT263

Component

### Hydraulic System

Fluid

### AW HYDRAULIC OIL ISO 32 (--- 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

There is a high amount of silt (particulates < 14 microns in size) 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		<b>WC0762761</b>	WC0741540	WC0664412
Sample Date	Client Info		<b>27 Jan 2023</b>	25 Jan 2023	14 Aug 2022
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>Not Chngd</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ATTENTION	NORMAL

#### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>10</b>	10	7
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >75	<b>1</b>	2	2
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
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 5	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m 5	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 25	<b>&lt;1</b>	1	0
Calcium	ppm	ASTM D5185m 200	<b>48</b>	48	49
Phosphorus	ppm	ASTM D5185m 300	<b>359</b>	344	356
Zinc	ppm	ASTM D5185m 370	<b>451</b>	450	459
Sulfur	ppm	ASTM D5185m 2500	<b>5357</b>	4705	4712

#### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	0

#### FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 15500</b>	▲ 5689	3410
Particles >6µm	ASTM D7647	>1300	<b>1011</b>	241	207
Particles >14µm	ASTM D7647	>160	<b>50</b>	13	29
Particles >21µm	ASTM D7647	>40	<b>15</b>	4	10
Particles >38µm	ASTM D7647	>10	<b>1</b>	2	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	2	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 21/17/13</b>	▲ 20/15/11	19/15/12

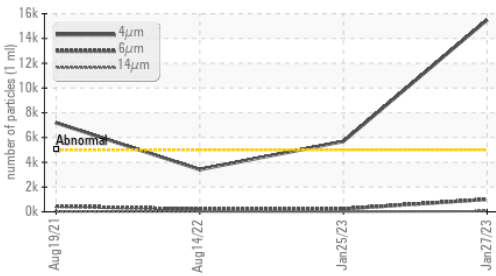
#### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	<b>0.31</b>	0.40	0.31

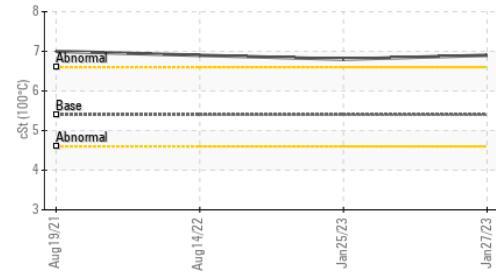


# OIL ANALYSIS REPORT

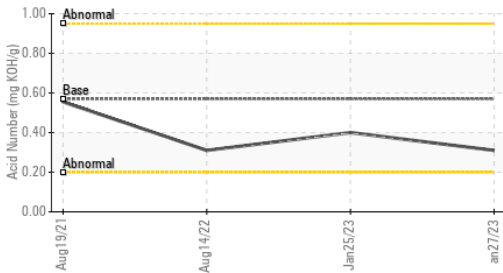
## Particle Trend



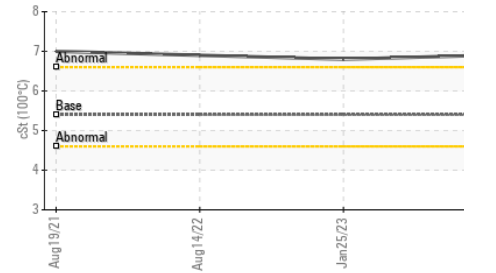
## Viscosity @ 100°C



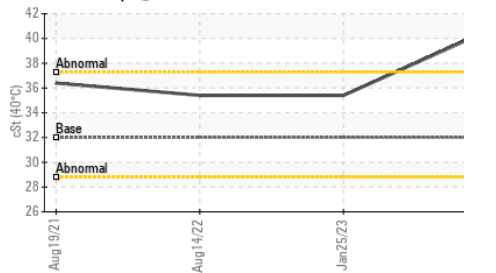
## Acid Number



## Viscosity @ 100°C



## Viscosity @ 40°C



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	40.6	35.4
Visc @ 100°C	cSt	ASTM D445	5.4	6.9	6.8
Viscosity Index (VI)	Scale	ASTM D2270	102	128	153

## SAMPLE IMAGES

Color

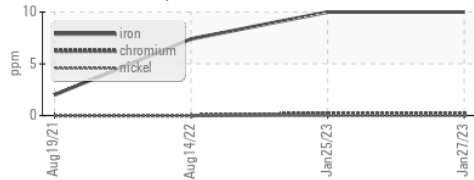


Bottom

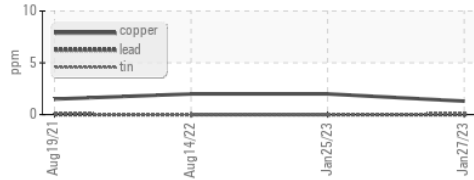


## GRAPHS

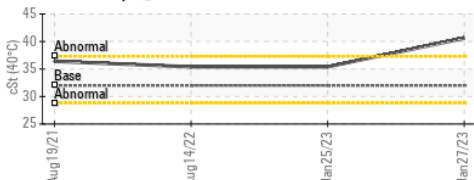
### Ferrous Alloys



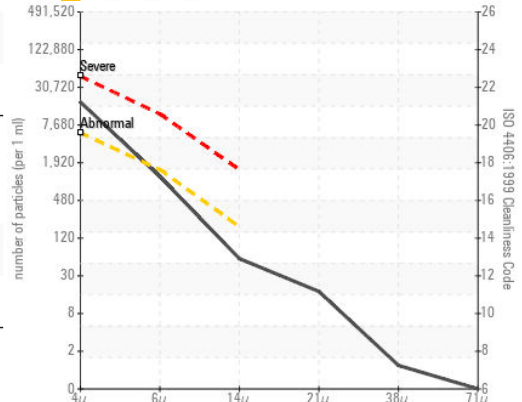
### Non-ferrous Metals



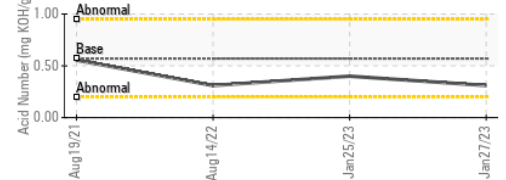
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0762761 Received : 14 Aug 2023  
 Lab Number : 05924255 Diagnosed : 15 Aug 2023  
 Unique Number : 10604202 Diagnostician : Don Baldrige  
 Test Package : MOB 2 ( Additional Tests: KV100, VI )

**HIAB USA - HAGERSTOWN**  
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 HAGERSTOWN, MD  
 US 21740  
 Contact: CHUCK WISHARD  
 CHUCK.WISHARD@HIAB.COM  
 T: (240)625-0045  
 F: (301)797-7284

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)