



# PROBLEM SUMMARY

## Sample Rating Trend

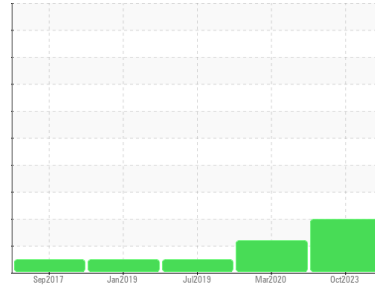
ISO



Machine Id  
**TOKIMEC 651 (S/N MMG608220)**

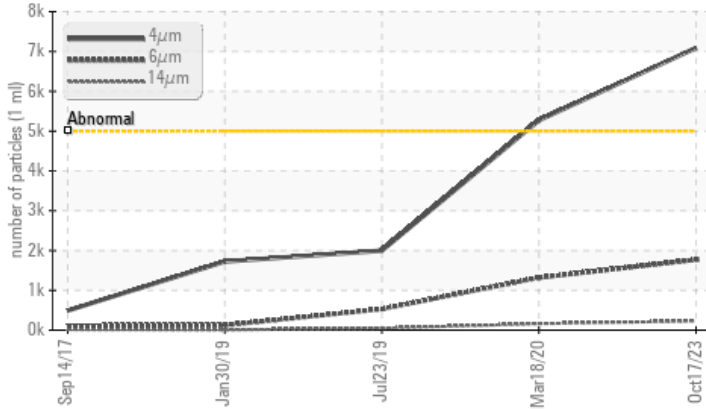
Component  
**Hydraulic System**

Fluid  
**SHELL TELLUS 46 (1000 LTR)**



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	ASTM D7647	ABNORMAL	ATTENTION	NORMAL
Particles >4µm	ASTM D7647	>5000	▲ <b>7089</b>	▲ 5272	1997
Particles >6µm	ASTM D7647	>1300	▲ <b>1770</b>	▲ 1319	528
Particles >14µm	ASTM D7647	>160	▲ <b>230</b>	▲ 162	48
Particles >21µm	ASTM D7647	>40	▲ <b>92</b>	56	13
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ <b>20/18/15</b>	▲ 20/18/15	18/16/13

Customer Id: VUTWOO  
Sample No.: WC0855500  
Lab Number: 02590058  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

## HISTORICAL DIAGNOSIS

### 18 Mar 2020 Diag: Wes Davis

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 23 Jul 2019 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 30 Jan 2019 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

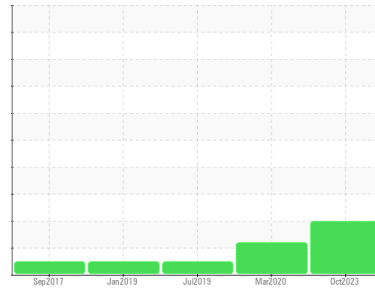
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**TOKIMEC 651 (S/N MMG608220)**

Component  
**Hydraulic System**

Fluid  
**SHELL TELLUS 46 (1000 LTR)**

## DIAGNOSIS

### Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of particulates (2 to 100 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>WC0855500</b>	WC0328542	WC760195
Sample Date	Client Info		<b>17 Oct 2023</b>	18 Mar 2020	23 Jul 2019
Machine Age	yrs	Client Info	<b>0</b>	15	15
Oil Age	yrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ATTENTION	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	<b>2</b>	4	3
Chromium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	2	1
Nickel	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m) >20	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m) >20	<b>2</b>	6	6
Tin	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0.0	<b>1</b>	<1	<1
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 11	<b>6</b>	3	4
Calcium	ppm	ASTM D5185(m) 35	<b>62</b>	43	43
Phosphorus	ppm	ASTM D5185(m) 266	<b>339</b>	369	355
Zinc	ppm	ASTM D5185(m) 276	<b>410</b>	416	407
Sulfur	ppm	ASTM D5185(m) 1847	<b>825</b>	1062	1015
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	<1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 7089</b>	▲ 5272	1997
Particles >6µm	ASTM D7647	>1300	<b>▲ 1770</b>	▲ 1319	528
Particles >14µm	ASTM D7647	>160	<b>▲ 230</b>	▲ 162	48
Particles >21µm	ASTM D7647	>40	<b>▲ 92</b>	56	13
Particles >38µm	ASTM D7647	>10	<b>14</b>	3	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 20/18/15</b>	▲ 20/18/15	18/16/13

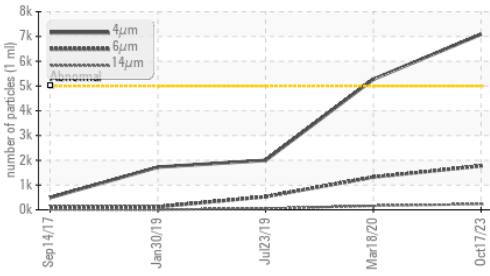
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.36	<b>0.50</b>	0.327	0.364

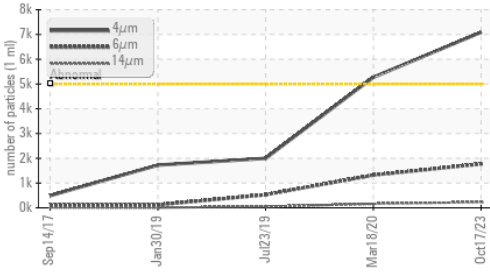


# OIL ANALYSIS REPORT

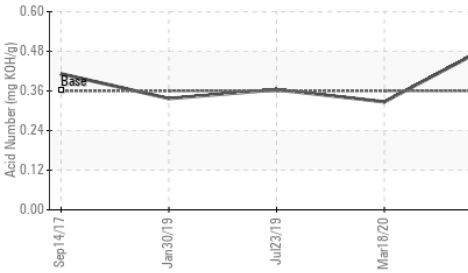
## Particle Trend



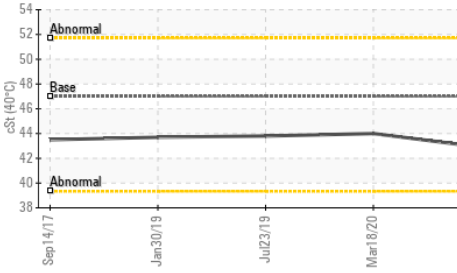
## Particle Trend



## Acid Number



## Viscosity @ 40°C



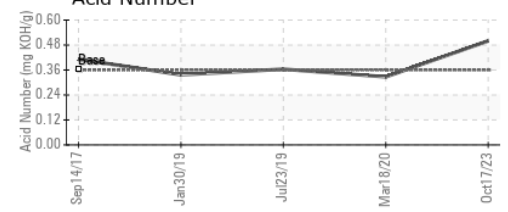
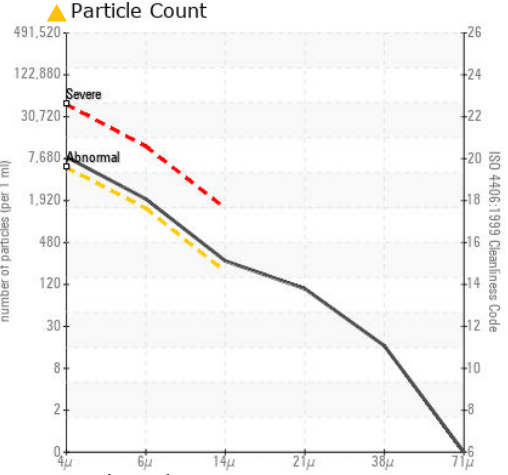
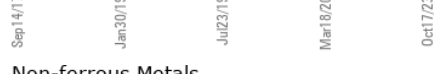
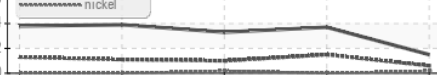
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.99	42.9	44.0

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



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0855500 **Received** : 18 Oct 2023  
**Lab Number** : 02590058 **Diagnosed** : 19 Oct 2023  
**Unique Number** : 5659124 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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