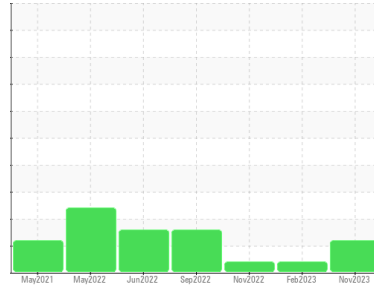




# PROBLEM SUMMARY

Area  
**COLD MILL/CM-3STD-2N**  
 Machine Id  
**Prep Station HPU 3ST2 Prep Station HPU**  
 Component  
**Hydraulic Power Pack**  
 Fluid  
**QUAKER CHEMICAL QUINTOLUBRIC 888-68 (200 GAL)**

Sample Rating Trend

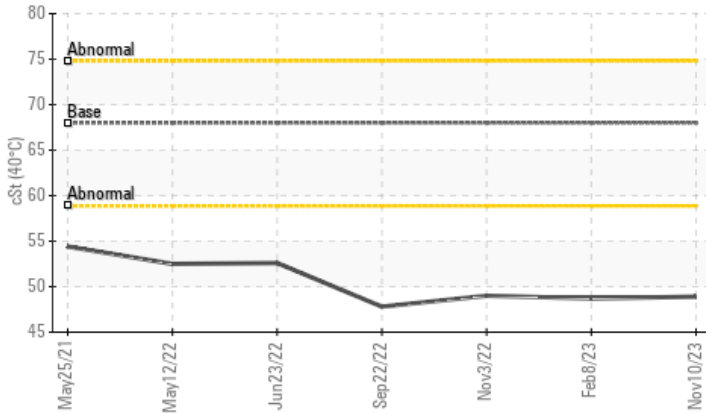


## VISCOSITY

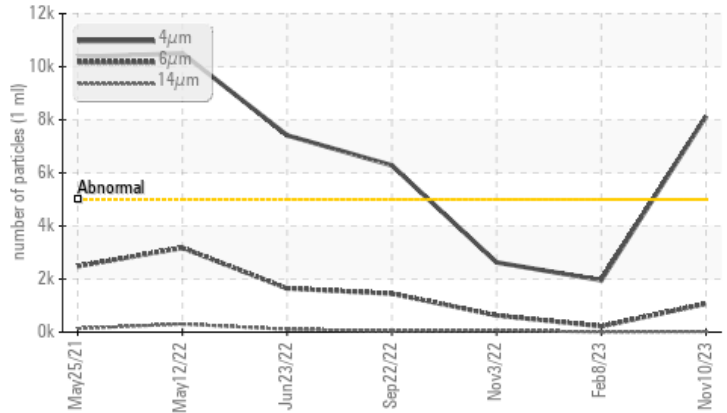


### COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



▲ Particle Trend



### RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

### PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ATTENTION	ATTENTION	
Particles >4µm	ASTM D7647	>5000	▲ 8134	1957	2627	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/17/12	18/15/10	19/16/13	
Visc @ 40°C	cSt	ASTM D445	68	▲ 48.9	▲ 48.7	▲ 49.0

Customer Id: CONMUSAL  
 Sample No.: KFS0004869  
 Lab Number: 06007645  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

### 08 Feb 2023 Diag: Jonathan Hester

#### VISCOSITY



No corrective action is recommended at this time. 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. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

view report



### 03 Nov 2022 Diag: Don Baldrige

#### VISCOSITY



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. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



### 22 Sep 2022 Diag: Don Baldrige

#### VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The oil viscosity is lower than normal. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

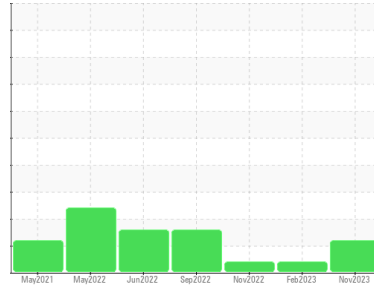
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**COLD MILL/CM-3STD-2N**  
Machine Id  
**Prep Station HPU 3ST2 Prep Station HPU**  
Component  
**Hydraulic Power Pack**  
Fluid  
**QUAKER CHEMICAL QUINTOLUBRIC 888-68 (200 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 moderate amount of silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

The oil viscosity is lower than normal. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KFS0004869</b>	KFS0002533	KFS0001925
Sample Date	Client Info	<b>10 Nov 2023</b>	08 Feb 2023	03 Nov 2022
Machine Age	Client Info	<b>0</b>	0	0
Oil Age	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ATTENTION</b>	ATTENTION	ATTENTION

### WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >20	<b>2</b>	2	<1
Chromium ppm	ASTM D5185m >20	<b>0</b>	0	0
Nickel ppm	ASTM D5185m >20	<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 >20	<b>0</b>	<1	0
Lead ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Tin ppm	ASTM D5185m >20	<b>286</b>	283	301
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 0	<b>0</b>	0	<1
Barium ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese ppm	ASTM D5185m 0	<b>0</b>	<1	0
Magnesium ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Calcium ppm	ASTM D5185m 10	<b>0</b>	3	1
Phosphorus ppm	ASTM D5185m 200	<b>107</b>	98	112
Zinc ppm	ASTM D5185m 125	<b>9</b>	10	0
Sulfur ppm	ASTM D5185m 1000	<b>583</b>	660	412

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >15	<b>2</b>	2	1
Sodium ppm	ASTM D5185m	<b>1</b>	2	2
Potassium ppm	ASTM D5185m >20	<b>0</b>	0	0

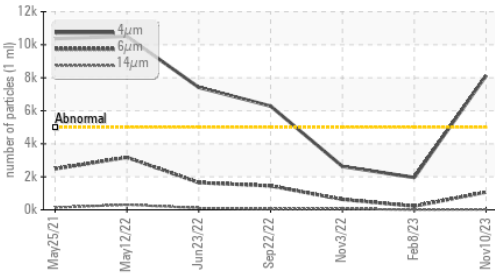
### FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 8134</b>	1957	2627
Particles >6µm	ASTM D7647 >1300	<b>1070</b>	220	629
Particles >14µm	ASTM D7647 >160	<b>22</b>	9	62
Particles >21µm	ASTM D7647 >40	<b>4</b>	2	18
Particles >38µm	ASTM D7647 >10	<b>1</b>	0	1
Particles >71µm	ASTM D7647 >3	<b>1</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 20/17/12</b>	18/15/10	19/16/13

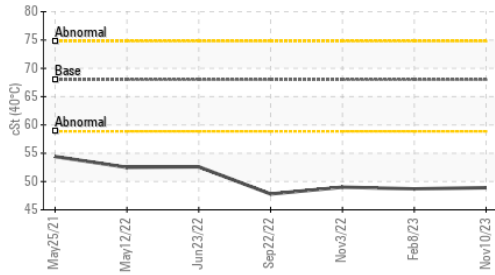
### FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045 1.5	<b>2.00</b>	1.84	2.01

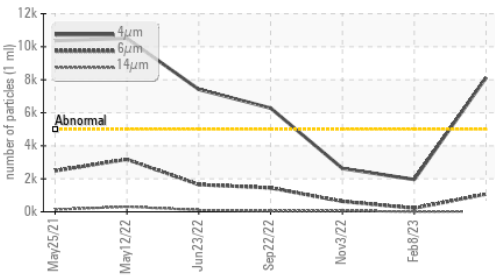
### ▲ Particle Trend



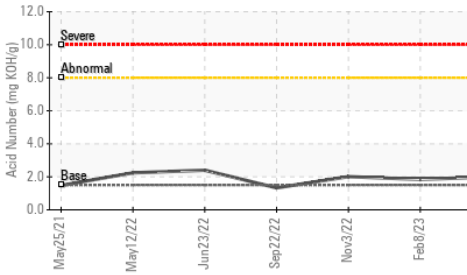
### ▲ Viscosity @ 40°C



### ▲ Particle Trend



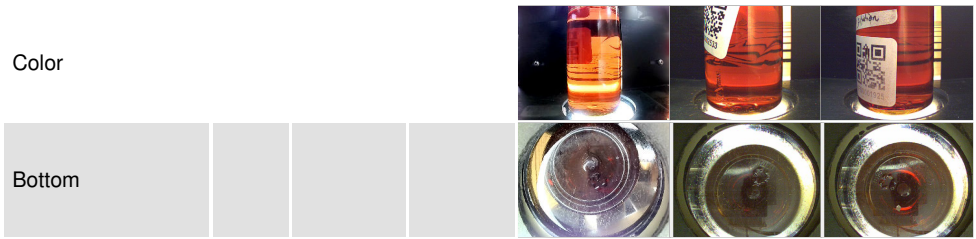
### Acid Number



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

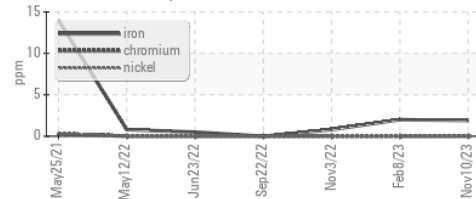
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	▲ 48.9	▲ 48.7	▲ 49.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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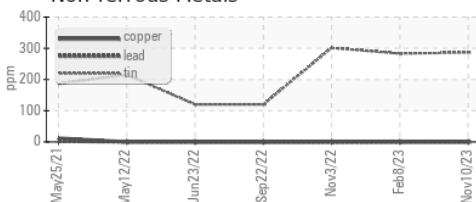


### GRAPHS

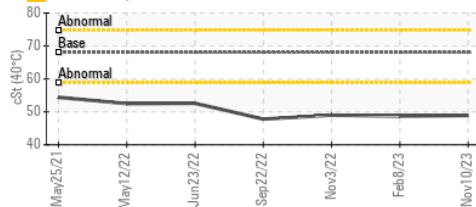
#### Ferrous Alloys



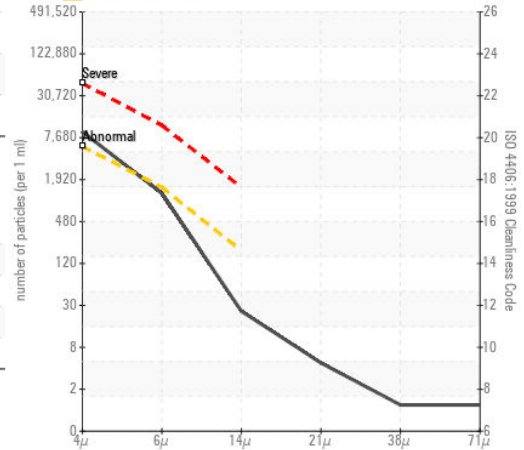
#### Non-ferrous Metals



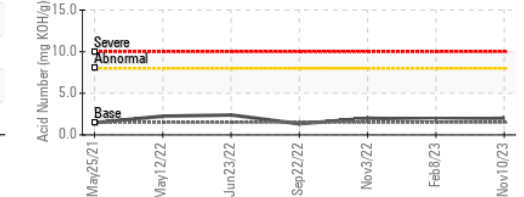
#### ▲ Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KFS0004869 **Received** : 14 Nov 2023  
**Lab Number** : 06007645 **Diagnosed** : 16 Nov 2023  
**Unique Number** : 10741407 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

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)

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