



# PROBLEM SUMMARY

Sample Rating Trend

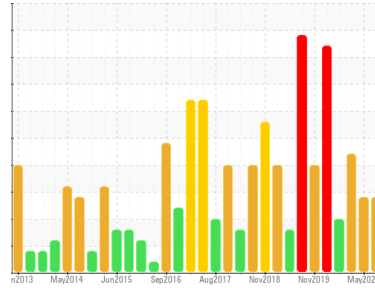
ISO



## Machine Id FLATTENING PRESS HPU

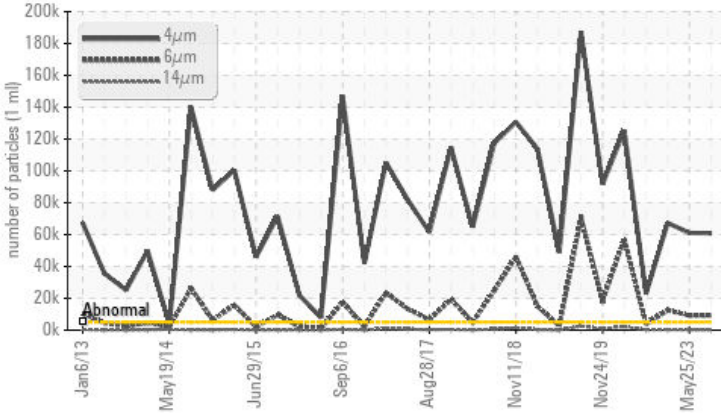
Component  
Hydraulic System

Fluid  
FORSYTHE TURBO HYDRAULIC AW 32 (40 LTR)

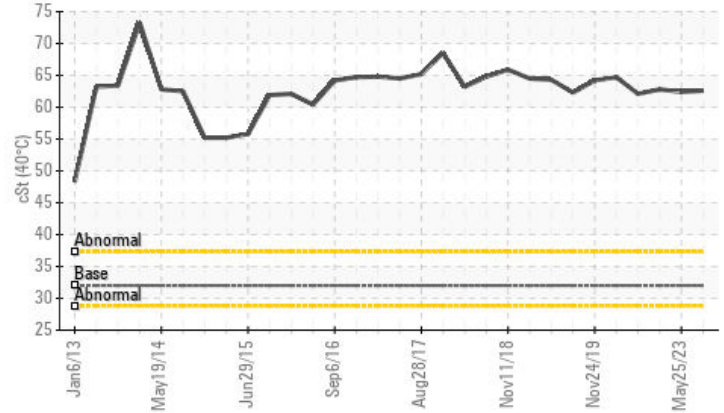


### COMPONENT CONDITION SUMMARY

#### Particle Trend



#### Viscosity @ 40°C



### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

### PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	SEVERE	
Particles >4µm	ASTM D7647	>5000	60798	61021	67302	
Particles >6µm	ASTM D7647	>1300	9263	9114	12538	
Particles >14µm	ASTM D7647	>160	204	237	313	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/20/15	23/20/15	23/21/15	
Visc @ 40°C	cSt	ASTM D7279(m)	32	62.6	62.4	62.8

Customer Id: WEL191WEL

Sample No.: WC0851648

Lab Number: 02577468

Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

Kevin Marson +1 (289)291-4644 x4644

[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

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 recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

25 May 2023 Diag: Kevin Marson



Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



08 Jan 2023 Diag: Kevin Marson



Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. All component wear rates are normal. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Particles >14µm are notably high. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



19 Sep 2022 Diag: Kevin Marson



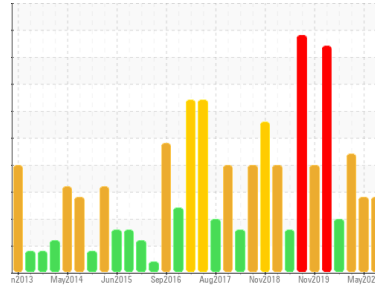
We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are notably high. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**FLATTENING PRESS HPU**

Component  
**Hydraulic System**

Fluid  
**FORSYTHE TURBO HYDRAULIC AW 32 (40 LTR)**

## DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

### 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

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0851648</b>	WC0822508	WC0777254
Sample Date	Client Info		<b>21 Aug 2023</b>	25 May 2023	08 Jan 2023
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	SEVERE

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<b>9</b>	13	12
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	4	4
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
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	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>5</b>	7	8
Calcium	ppm	ASTM D5185(m)		<b>43</b>	47	47
Phosphorus	ppm	ASTM D5185(m)		<b>290</b>	305	294
Zinc	ppm	ASTM D5185(m)		<b>317</b>	309	309
Sulfur	ppm	ASTM D5185(m)		<b>1237</b>	1721	1647
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## 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>&lt;1</b>	0	0

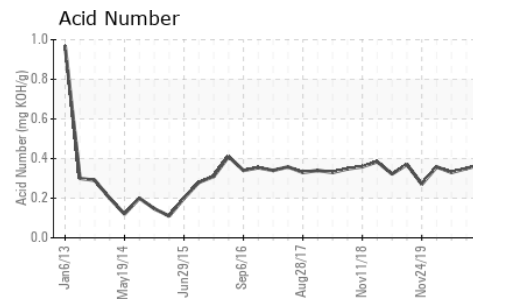
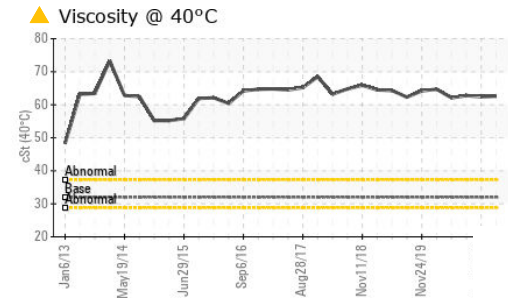
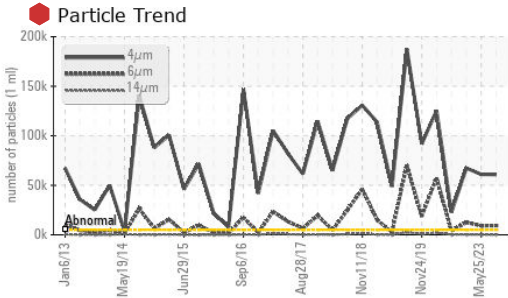
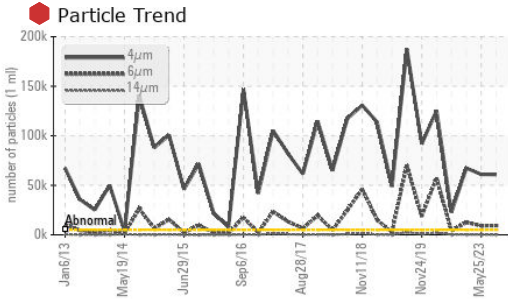
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>60798</b>	61021	67302
Particles >6µm	ASTM D7647	>1300	<b>9263</b>	9114	12538
Particles >14µm	ASTM D7647	>160	<b>204</b>	237	313
Particles >21µm	ASTM D7647	>40	<b>31</b>	33	49
Particles >38µm	ASTM D7647	>10	<b>1</b>	1	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>23/20/15</b>	23/20/15	23/21/15

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>0.32</b>	0.37	0.35

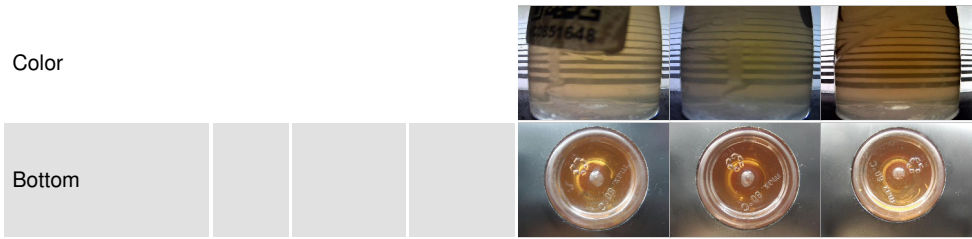
# OIL ANALYSIS REPORT



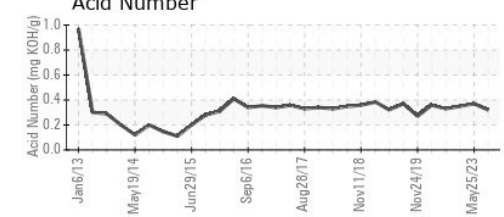
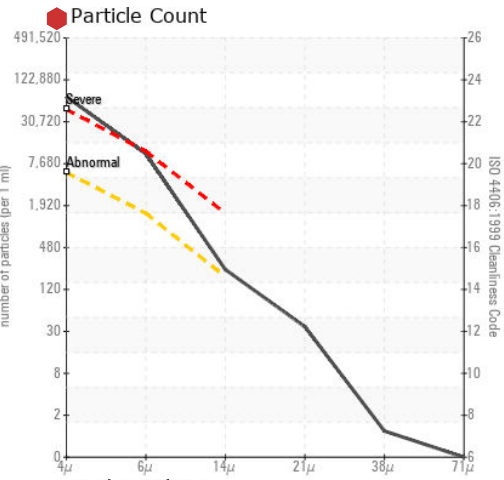
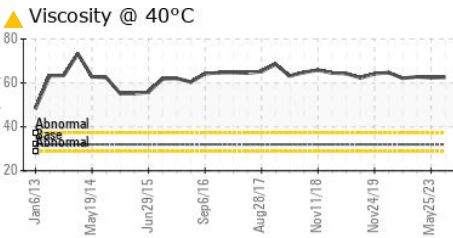
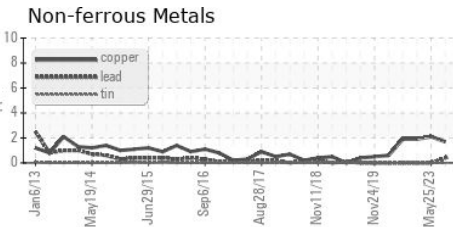
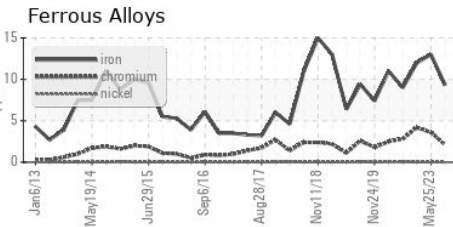
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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)	32 <span style="color: yellow;">▲</span> 62.6	62.4	62.8

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.** : WC0851648 **Received** : 22 Aug 2023  
**Lab Number** : 02577468 **Diagnosed** : 23 Aug 2023  
**Unique Number** : 5630528 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2

**Welded Tube of Canada**  
 191 Ridge Road  
 Welland, ON  
 CA L3B 5N7  
 Contact: Steve Holjak  
 sholjak@weldedtube.com  
 T: (905)669-1111  
 F: (905)695-1504

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.