

## **PROBLEM SUMMARY**

ISO ISO ISO

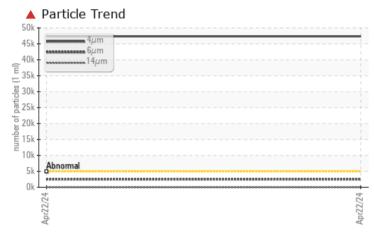
Sample Rating Trend

### Machine Id SHAWN - UNITED RENTALS

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

#### COMPONENT CONDITION SUMMARY



#### 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. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### PROBLEMATIC TEST RESULTS

Sample Status		SEVERE	 
Particles >4µm	ASTM D7647 >5	5000 <b>🔺 47376</b>	 
Particles >6µm	ASTM D7647 >	1300 🔺 <b>2531</b>	 
Oil Cleanliness	ISO 4406 (c) >1	19/17/14 🔺 23/19/10	 

Customer Id: PALTIF Sample No.: WC0897211 Lab Number: 06157581 Test Package: CONST



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

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@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.			
Information Required			?	Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the component make and model with your next sample.			
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



## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

Machine Id SHAWN - UNITED RENTALS

Hydraulic System Fluid AW HYDRAULIC OIL ISO 32 (--- GAL)

#### DIAGNOSIS

#### A 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. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

#### 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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0897211		
Sample Date		Client Info		22 Apr 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	2		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>75	1		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0		
Barium	ppm	ASTM D5185m	5	0		
Molybdenum	ppm	ASTM D5185m	5	1		
Manganese	ppm	ASTM D5185m		0		
Manganoso	ppiii					
Magnesium	ppm	ASTM D5185m	25	4		
•		ASTM D5185m ASTM D5185m	25 200	4 61		
Magnesium	ppm			-		
Magnesium Calcium	ppm ppm	ASTM D5185m	200	61		
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m	200 300	61 310		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370	61 310 430		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 300 370 2500	61 310 430 1067		  
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	200 300 370 2500 limit/base	61 310 430 1067 current		  
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 300 370 2500 limit/base >20	61 310 430 1067 current <1		  
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	200 300 370 2500 limit/base >20	61 310 430 1067 <u>current</u> <1 0		   history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370 2500 limit/base >20 >20	61 310 430 1067 <u>current</u> <1 0 1	  history1  	  history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370 2500 <b>limit/base</b> >20 <b>limit/base</b>	61 310 430 1067 <u>current</u> <1 0 1 1 <u>current</u>	  history1   history1	  history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370 2500 Imit/base >20 S20 Imit/base >5000	61 310 430 1067 current <1 0 1 1 current 47376	  history1   history1 	  history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	200 300 370 2500 <b>Imit/base</b> >20 <b>Imit/base</b> >5000 >1300	61 310 430 1067 <u>current</u> <1 0 1 <u>current</u> ▲ 47376 ▲ 2531	  history1   history1  history1	  history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 <b>limit/base</b> >20 >20 <b>limit/base</b> >5000 >1300 >160	61 310 430 1067 Current <1 0 1 Current ▲ 47376 ▲ 2531 8	  history1   history1  history1	  history2   history2  history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4μm Particles >14μm Particles >21μm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 <b>limit/base</b> >20 <b>limit/base</b> >5000 >1300 >160 >40	61 310 430 1067 current <1 0 1 current ▲ 47376 ▲ 2531 8 2	  history1   history1  history1	  history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4μm Particles >5μm Particles >21μm Particles >38μm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 <b>limit/base</b> >20 <b>limit/base</b> >5000 >1300 >160 >40 >10	61 310 430 1067 Current <1 0 1 Current ▲ 47376 ▲ 2531 8 2 0 0	  history1   history1  history1  	  history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 <b>Imit/base</b> >20 >20 <b>Imit/base</b> >5000 >1300 >160 >40 >10 >3	61 310 430 1067 Current <1 0 1 Current ▲ 47376 ▲ 47376 ▲ 2531 8 2 0 0 0 0	  history1    history1       	  history2    history2    

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# **OIL ANALYSIS REPORT**



**PALFINGER - BRANCH 400** 4151 W ST RT 18 TIFFIN, OH US 44883

Contact: ERIC HILL

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T: (419)448-8156



Unique Number : 10993004 Diagnosed : 24 Apr 2024 - Wes Davis Test Package : CONST 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)

Tested

: 24 Apr 2024

Lab Number : 06157581

Report Id: PALTIF [WUSCAR] 06157581 (Generated: 04/24/2024 12:32:45) Rev: 1

Contact/Location: ERIC HILL - PALTIF

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