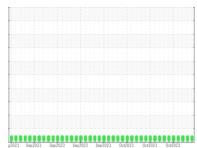


## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



NORMAL



# QC230213IND2

Component

Hydraulic System

**AW HYDRAULIC OIL ISO 68 (--- GAL)** 

### DIAGNOSIS

#### Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

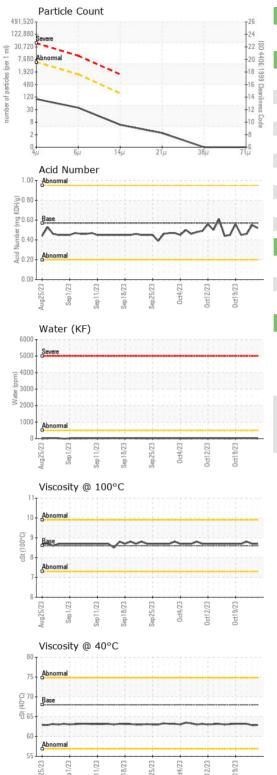
#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

2023 Sm2023 Sm2023 Sm2023 Sm2023 Oct023 Oct023 Oct023 Oct023									
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		WC0865592	WC0865591	WC0865590			
Sample Date		Client Info		25 Oct 2023	24 Oct 2023	23 Oct 2023			
Machine Age	hrs	Client Info		0	0	0			
Oil Age	hrs	Client Info		0	0	0			
Oil Changed		Client Info		N/A	N/A	N/A			
Sample Status				NORMAL	NORMAL	NORMAL			
WEAR METALS		method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185(m)	>20	0	0	0			
Chromium	ppm	ASTM D5185(m)	>20	0	0	0			
Nickel	ppm	ASTM D5185(m)	>20	0	<1	0			
Titanium	ppm	ASTM D5185(m)		0	0	0			
Silver	ppm	ASTM D5185(m)		<1	<1	<1			
Aluminum	ppm	ASTM D5185(m)	>20	0	0	0			
Lead	ppm	ASTM D5185(m)	>20	0	<1	0			
Copper	ppm	ASTM D5185(m)	>20	0	<1	<1			
Tin	ppm	ASTM D5185(m)	>20	0	0	0			
Antimony	ppm	ASTM D5185(m)		0	0	0			
Vanadium	ppm	ASTM D5185(m)		0	0	0			
Beryllium	ppm	ASTM D5185(m)		0	0	0			
Cadmium	ppm	ASTM D5185(m)		0	0	0			
ADDITIVES		method	limit/base	current	history1	history2			
Boron	ppm	ASTM D5185(m)	5	<1	<1	<1			
Barium	ppm	ASTM D5185(m)	5	0	0	<1			
Molybdenum	ppm	ASTM D5185(m)	5	0	0	0			
Manganese	ppm	ASTM D5185(m)		0	0	0			
Magnesium	ppm	ASTM D5185(m)	25	0	0	<1			
Calcium	ppm	ASTM D5185(m)	200	47	44	43			
Phosphorus	ppm	ASTM D5185(m)	300	338	349	341			
Zinc	ppm	ASTM D5185(m)	370	422	442	431			
Sulfur	ppm	ASTM D5185(m)	2500	696	908	695			
Lithium	ppm	ASTM D5185(m)		<1	<1	<1			
CONTAMINANTS	8	method	limit/base	current	history1	history2			
Silicon	ppm	ASTM D5185(m)	>15	0	0	<1			
Sodium	ppm	ASTM D5185(m)		0	<1	0			
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0			
Water	%	ASTM D6304*	>0.05	0.001	0.003	0.003			
ppm Water	ppm	ASTM D6304*	>500	12.7	26.1	25.1			
FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2			
Particles >4μm		ASTM D7647	>5000	85	368	192			
Particles >6µm		ASTM D7647	>1300	33	95	72			
Particles >14µm		ASTM D7647	>160	5	7	14			
Particles >21µm		ASTM D7647		2	2	5			
Particles >38µm		ASTM D7647	>10	0	1	1			
Particles >71μm		ASTM D7647		0	0	0			
Oil Cleanliness		ISO 4406 (c)	>19/17/14	14/12/10	16/14/10	15/13/11			



## **OIL ANALYSIS REPORT**



FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.52	0.55	0.46
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	62.9	62.8	63.2
Visc @ 100°C	cSt	ASTM D7279(m)	8.6	8.7	8.7	8.8
Viscosity Index (VI)	Scale	ASTM D2270*	96	111	111	113
SAMPLE IMAGES		method	limit/base	current	history1	history2
				592	0865591	
Color						
				and the second	The same of	
				7		
Bottom						



CALA ISO 17025:2017 Accredited

Laboratory Sample No. Lab Number **Unique Number** 

: WC0865592 : 02591754

: 5668833

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 WearCheck Quality Control Sample Results Received

: 25 Oct 2023 Diagnosed : 26 Oct 2023

Diagnostician : Wes Davis Test Package : IND 2 (Additional Tests: KF, KV100, TAN Man, VI) Burlington, ON CA

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.

Contact: Dorian Anderson dorian.anderson@wearcheck.com

T: (289)291-4652 F: (905)569-8605