

OIL ANALYSIS REPORT

[6026557] 5001-PR29-HPP48

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

Sample Rating Trend

NORMAL

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 system and fluid cleanliness is acceptable.

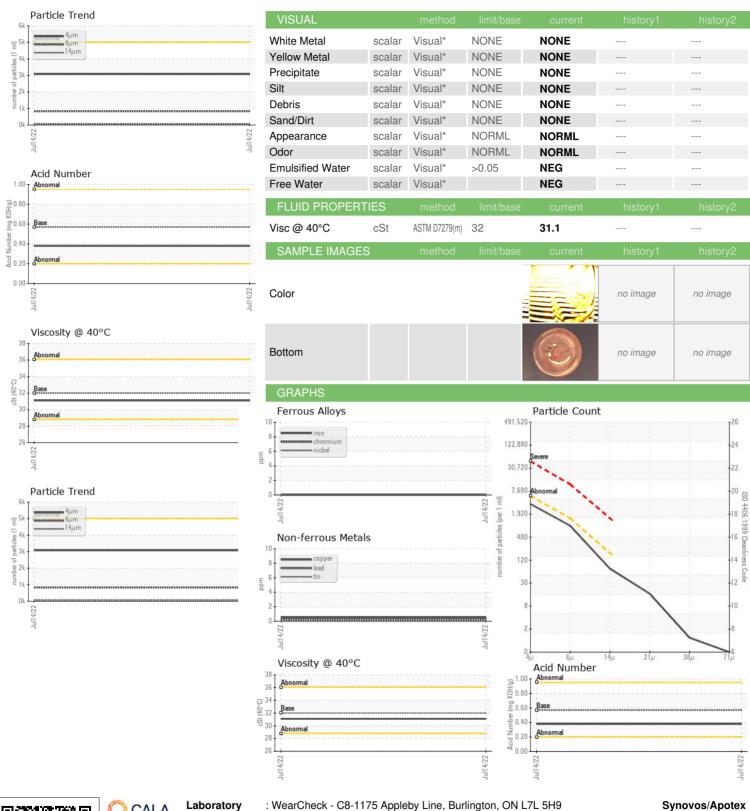
Fluid Condition

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

Sample Number Client Info CB0031081	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0	Sample Number		Client Info		CB0031081		
Oil Age hrs Client Info N/A Sample Status Client Info N/A WEAR METALS method limit/base current history1 history2 Iron ppm ASTM DS185(m) >20 0 Chromium ppm ASTM DS185(m) >20 0 Nickel ppm ASTM DS185(m) >20 0 Silver ppm ASTM DS185(m) >20 0 Aluminum ppm ASTM DS185(m) >20 <1 Lead ppm ASTM DS185(m) >20 <1 Tin ppm ASTM DS185(m) >20 <1 Antimony ppm ASTM DS185(m) 0 Vanadium ppm ASTM DS185(m) 0	Sample Date		Client Info		14 Jul 2022		
Oil Changed Status NoRMAL Sample Status Sa	Machine Age	hrs	Client Info		0		
Sample Status method limit/bass current history1 history2 Iron ppm ASTM DS188(m) >20 0 Chromium ppm ASTM DS188(m) >20 0 Nickel ppm ASTM DS188(m) >20 0 Silver ppm ASTM DS188(m) >20 <1 Aluminum ppm ASTM DS188(m) >20 <1 Lead ppm ASTM DS188(m) >20 <1 Lead ppm ASTM DS188(m) >20 <1 Copper ppm ASTM DS188(m) >20 <1 Vanadium ppm ASTM DS188(m) 0 Vanadium ppm ASTM DS188(m) 0 Vandium ppm ASTM DS188(m) 0	Oil Age	hrs	Client Info		0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >20 0 Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) >20 <1 Lead ppm ASTM D5185(m) >20 <1 Copper ppm ASTM D5185(m) >20 <1 Tin ppm ASTM D5185(m) >20 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0	Oil Changed		Client Info		N/A		
Iron	Sample Status				NORMAL		
Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) 20 0 Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) >20 <1 Aluminum ppm ASTM D5185(m) >20 <1 Lead ppm ASTM D5185(m) >20 <1 Copper ppm ASTM D5185(m) >20 <1 Tin ppm ASTM D5185(m) >20 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 5 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185(m) >20 0	Iron	ppm	ASTM D5185(m)	>20	0		
Nickel ppm ASTM D5185(m) >20 0	Chromium	ppm	ASTM D5185(m)	>20	0		
Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) >20 <1	Nickel		ASTM D5185(m)	>20	0		
Silver	Titanium		. ,		0		
Aluminum			, ,		0		
Lead			. ,	>20			
Copper ppm ASTM D5185(m) >20 <1 Tin ppm ASTM D5185(m) >20 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 5 <1							
Tin ppm ASTM D5185(m) >20 0			. ,				
Antimony			, ,				
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Beryllium	-		. ,		-		
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 5 <1			. ,				
ADDITIVES	•		()		_		
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Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 5 0 Manganese ppm ASTM D5185(m) 25 0 Magnesium ppm ASTM D5185(m) 25 0 Calcium ppm ASTM D5185(m) 200 47 Phosphorus ppm ASTM D5185(m) 300 318 Zinc ppm ASTM D5185(m) 370 386 Sulfur ppm ASTM D5185(m) 2500 744 Lithium ppm ASTM D5185(m) 2500 744 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 0 Sodium ppm ASTM D5185(m) >20 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 3084 Particles >14μm ASTM D7647 >1300 832 Particles >21μm ASTM D7647 >40 14 Particles >38μm ASTM D7647 >40 14 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13	Boron	ppm					
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Magnesium ppm ASTM D5185(m) 25 0 Calcium ppm ASTM D5185(m) 200 47 Phosphorus ppm ASTM D5185(m) 300 318 Zinc ppm ASTM D5185(m) 370 386 Sulfur ppm ASTM D5185(m) 2500 744 Lithium ppm ASTM D5185(m) 2500 744 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 0 Sodium ppm ASTM D5185(m) >20 <1	Molybdenum	ppm	ASTM D5185(m)	5	0		
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Zinc ppm ASTM D5185(m) 370 386 Sulfur ppm ASTM D5185(m) 2500 744	Calcium	ppm	ASTM D5185(m)	200	47		
Sulfur ppm ASTM D5185(m) 2500 744 Lithium ppm ASTM D5185(m) 2500 744 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 0 Sodium ppm ASTM D5185(m) 0 Potassium ppm ASTM D5185(m) >20 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 3084 Particles >6μm ASTM D7647 >1300 832 Particles >14μm ASTM D7647 >160 63 Particles >21μm ASTM D7647 >40 14 Particles >71μm ASTM D7647 >3 0	Phosphorus	ppm	ASTM D5185(m)	300	318		
Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 0 Sodium ppm ASTM D5185(m) >20 <1	Zinc	ppm	ASTM D5185(m)	370	386		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 0 Sodium ppm ASTM D5185(m) 0 Potassium ppm ASTM D5185(m) >20 <1	Sulfur	ppm	ASTM D5185(m)	2500	744		
Silicon ppm ASTM D5185(m) >15 0 Sodium ppm ASTM D5185(m) 0 Potassium ppm ASTM D5185(m) >20 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 3084 Particles >6μm ASTM D7647 >1300 832 Particles >14μm ASTM D7647 >160 63 Particles >21μm ASTM D7647 >40 14 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13	Lithium	ppm	ASTM D5185(m)		<1		
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$			()	>20			
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Particles >14μm ASTM D7647 >160 63 Particles >21μm ASTM D7647 >40 14 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13	Particles >4µm		ASTM D7647	>5000	3084		
Particles >21μm ASTM D7647 >40 14 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13	Particles >6µm		ASTM D7647	>1300	832		
Particles >21μm ASTM D7647 >40 14 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13			ASTM D7647	>160			
Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13			ASTM D7647	>40	14		
Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13					1		
Oil Cleanliness ISO 4406 (c) >19/17/14 19/17/13							
FLUID DEGRADATION method limit/base current history1 history2	•				_		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

: 02503047

: CB0031081

: 5436008

Received Diagnosed Diagnostician

: 03 Aug 2022 : 04 Aug 2022 : 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.

Synovos/Apotex 50 Steinway Blvd. Etobicoke, ON **CA M9W 6Y3** Contact: Calvin Shum

cshum@apotex.com

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