

OIL ANALYSIS REPORT

Sample Rating Trend

Jac(221) Jac(224

NORMAL



720-2 (S/N MMG611W46)

Hydraulic System

PROLUBE AW 46 (1400 LTR)

Fluid

Discussion

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Recommendation

Resample at the next service interval to monitor.

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.

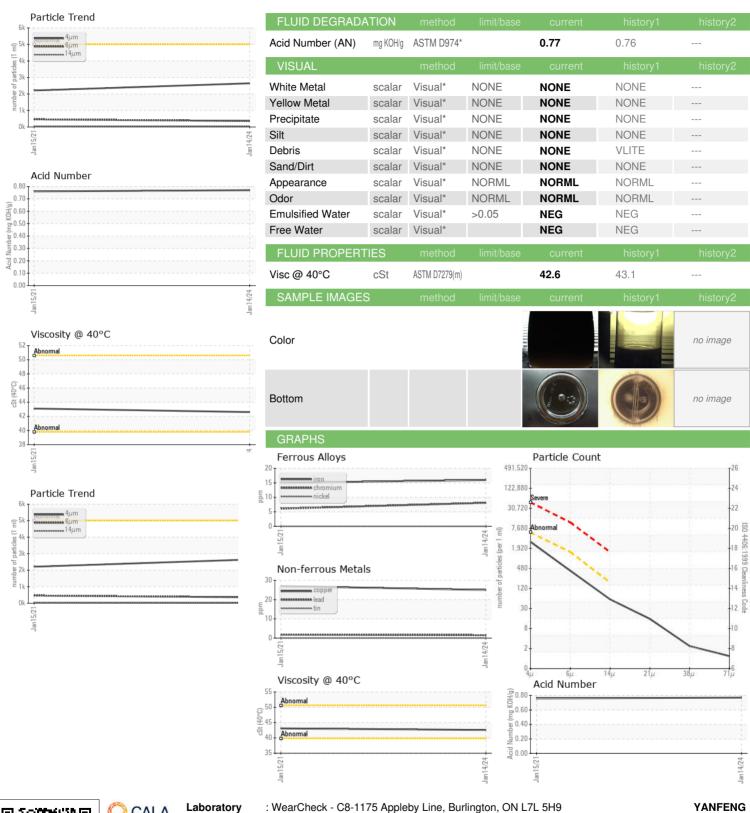
Fluid Condition

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

SAMPLE INFORMATION method limit/bass current history1 history2				Jan2021	Jan2024		
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 5 0	Sample Number		Client Info		WC0679986	WC905912	
Oil Age	Sample Date		Client Info		14 Jan 2024	15 Jan 2021	
Oil Changed Status Client Info Filtered N/A NORMAL NO	Machine Age	hrs	Client Info		10	0	
Sample Status	Oil Age	hrs	Client Info		5	0	
Water WC Method Imilibase Current history1 history2	Oil Changed		Client Info		Filtered	N/A	
Water WC Method > 0.05 NEG NEG	Sample Status				NORMAL	NORMAL	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM DS18S(m) >20 16 15	CONTAMINATION	٧	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.05	NEG	NEG	
Chromium ppm ASTM D5185(m) >20 8 6 Nickel ppm ASTM D5185(m) >20 0 0 Titanium ppm ASTM D5185(m) 0 0 Aluminum ppm ASTM D5185(m) 20 <1 <1 Lead ppm ASTM D5185(m) >20 2 2 Lead ppm ASTM D5185(m) >20 2 2 Copper ppm ASTM D5185(m) >20 0 0 Antimony ppm ASTM D5185(m) 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) <1 1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185(m) >20 0 0	Iron	ppm	ASTM D5185(m)	>20	16	15	
Titanium	Chromium	ppm	ASTM D5185(m)	>20	8	6	
Silver	Nickel	ppm	ASTM D5185(m)	>20	0	0	
Aluminum	Titanium	ppm	ASTM D5185(m)		0	0	
Lead ppm ASTM D5185(m) >20 2 2 Copper ppm ASTM D5185(m) >20 25 27 Tin ppm ASTM D5185(m) >20 0 0 Antimony ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) <1 1 Boron ppm ASTM D5185(m) <1 <1 Molybdenum ppm ASTM D5185(m) <1 <1 Magnesium ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 297 298 Zinc pp	Silver	ppm	ASTM D5185(m)		0	<1	
Copper ppm ASTM D5185(m) >20 25 27 Tin ppm ASTM D5185(m) >20 0 0 Antimony ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) <1 1 Boron ppm ASTM D5185(m) <1 <1 Barium ppm ASTM D5185(m) <1 <1 Molybdenum ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 22 23 Magnesium ppm ASTM D5185(m) 297 298 Zinc ppm ASTM D5185(m) 330 356 <th>Aluminum</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th>>20</th> <th><1</th> <th><1</th> <th></th>	Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	
Tin ppm ASTM D5185(m) >20 0 0 Antimony ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0	Lead	ppm	ASTM D5185(m)	>20	2	2	
Antimony ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1 1 Barium ppm ASTM D5185(m) <1 <1 Molybdenum ppm ASTM D5185(m) <1 <1 Magnesium ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 22 23 Calcium ppm ASTM D5185(m) 297 298 Zinc ppm ASTM D5185(m) 330 356 Sulfur ppm ASTM D5185(m) 1495 1547 -	Copper	ppm	ASTM D5185(m)	>20	25	27	
Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1	Tin	ppm	ASTM D5185(m)	>20		0	
Beryllium	Antimony	ppm	ASTM D5185(m)		0	0	
Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1 1 Barium ppm ASTM D5185(m) <1 <1 Molybdenum ppm ASTM D5185(m) 0 <1 Manganese ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 22 23 Calcium ppm ASTM D5185(m) 22 23 Phosphorus ppm ASTM D5185(m) 297 298 Zinc ppm ASTM D5185(m) 330 356 Sulfur ppm ASTM D5185(m) 1495 1547 Lithium ppm ASTM D5185(m) >1 2 Sodium ppm ASTM D5185(m) >15 1 <td< th=""><th>Vanadium</th><th>ppm</th><th>ASTM D5185(m)</th><th></th><th></th><th></th><th></th></td<>	Vanadium	ppm	ASTM D5185(m)				
ADDITIVES method limit/base current history1 history2	Beryllium	ppm	ASTM D5185(m)		0	0	
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Barium							
Molybdenum ppm ASTM D5185(m) <1	ADDITIVES		method	limit/base	current	history1	history2
Manganese ppm ASTM D5185(m) 0 <1		ppm		limit/base			,
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Calcium ppm ASTM D5185(m) 144 153 Phosphorus ppm ASTM D5185(m) 297 298 Zinc ppm ASTM D5185(m) 330 356 Sulfur ppm ASTM D5185(m) 1495 1547 Lithium ppm ASTM D5185(m) <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 1 2 Sodium ppm ASTM D5185(m) >20 <1 <1 Sodium ppm ASTM D5185(m) >20 <1 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 2645 2210 Particles >6µm ASTM D7647 >1300 360 464	Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	<1 <1	1 <1	
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Zinc ppm ASTM D5185(m) 330 356 Sulfur ppm ASTM D5185(m) 1495 1547 Lithium ppm ASTM D5185(m) <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 1 2 Sodium ppm ASTM D5185(m) >20 <1 <1 Potassium ppm ASTM D5185(m) >20 <1 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2645 2210 Particles >6μm ASTM D7647 >1300 360 464 Particles >1μm ASTM D7647 >40 13 9 Particles >21μm ASTM D7647 >40 13 9 Pa	Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 <1 <1 0	1 <1 <1 <1 <1	
Sulfur ppm ASTM D5185(m) 1495 1547 Lithium ppm ASTM D5185(m) <1	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 <1 <1 0 22	1 <1 <1 <1 <1 <23	
Lithium ppm ASTM D5185(m) <1	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 <1 <1 0 22 144	1 <1 <1 <1 <2 <1 <2 <1 <23 <153	
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Silicon ppm ASTM D5185(m) >15 1 2 Sodium ppm ASTM D5185(m) 2 2 2 Potassium ppm ASTM D5185(m) >20 <1	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 <1 <1 0 22 144 297 330	1 <1 <1 <1 <23 153 298 356	
Sodium ppm ASTM D5185(m) 2 2 Potassium ppm ASTM D5185(m) >20 <1 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >5000 2645 2210 Particles >6μm ASTM D7647 >1300 360 464 Particles >14μm ASTM D7647 >160 50 41 Particles >21μm ASTM D7647 >40 13 9 Particles >38μm ASTM D7647 >10 2 0 Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 <1 <1 0 22 144 297 330 1495	1 <1 <1 <1 <23 153 298 356 1547	
Potassium ppm ASTM D5185(m) >20 <1	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		<1 <1 <1 0 22 144 297 330 1495 <1	1 <1 <1 <1 <23 153 298 356 1547 <1	
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Particles >6μm ASTM D7647 >1300 360 464 Particles >14μm ASTM D7647 >160 50 41 Particles >21μm ASTM D7647 >40 13 9 Particles >38μm ASTM D7647 >10 2 0 Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base >15	<1 <1 <1 <1 0 22 144 297 330 1495 <1 current 1	1	history2
Particles >14μm ASTM D7647 >160 50 41 Particles >21μm ASTM D7647 >40 13 9 Particles >38μm ASTM D7647 >10 2 0 Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base >15 >20	<1 <1 <1 <1 0 22 144 297 330 1495 <1 current 1 2 <1	1	history2
Particles >21μm ASTM D7647 >40 13 9 Particles >38μm ASTM D7647 >10 2 0 Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base	<1 <1 <1 <1 0 22 144 297 330 1495 <1 current 1 2 <1	1	history2
Particles >38μm ASTM D7647 >10 2 0 Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m)	limit/base >15 >20 limit/base >5000	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	1	history2 history2
Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	limit/base >15 >20 limit/base >5000 >1300	<1 <1 <1 <1 0 22 144 297 330 1495 <1 current 1 2 <1 current 2645 360	1	history2 history2
Particles >71μm ASTM D7647 >3 1 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15	<1 <1 <1 <1 0 22 144 297 330 1495 <1 current 1 2 <1 current 2645 360 50	1	history2 history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40	<1 <1 <1 <1 <0 22 144 297 330 1495 <1 current 1 2 <1 current 2645 360 50 13	1	history2 history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	<1 <1 <1 <1 <0 22 144 297 330 1495 <1 current 1 2 <1 current 2645 360 50 13 2	1	history2 history2



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory Sample No. Lab Number Unique Number

: WC0679986 : 02608995 : 5710081 Test Package : IND 2

Recieved : 16 Jan 2024 Diagnosed : 17 Jan 2024 Diagnostician

: Wes Davis

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.

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