

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **1000004715** Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (1500 LTR)

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 INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0905454		
Sample Date		Client Info		04 Apr 2024		
Machine Age		Client Info		0		
Oil Age		Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status	-		NORMAL			
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	10		
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)		0		
Aluminum	ppm	ASTM D5185(m)	>20	0		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>20	2		
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)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<1		
Barium	ppm	ASTM D5185(m)	5	0		
Molybdenum	ppm	ASTM D5185(m)	5	0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)	25	2		
Calcium		()				
	ppm	ASTM D5185(m)	200	22		
	ppm ppm	ASTM D5185(m) ASTM D5185(m)	200 300	22 264		
Phosphorus Zinc	ppm	ASTM D5185(m)				
Phosphorus	ppm ppm		300	264 228		
Phosphorus Zinc	ppm	ASTM D5185(m) ASTM D5185(m)	300 370	264		
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	300 370	264 228 575		
Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	300 370 2500 limit/base	264 228 575 <1 current		
Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	300 370 2500	264 228 575 <1	 history1	 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	300 370 2500 limit/base	264 228 575 <1 current 0	 history1 	 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	300 370 2500 limit/base >15	264 228 575 <1 current 0 1 <1	 history1 	 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	300 370 2500 limit/base >15 >20 limit/base	264 228 575 <1 current 0 1 <1 <1	 history1 	 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	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	300 370 2500 limit/base >15 >20 limit/base >5000	264 228 575 <1 current 0 1 <1 <1 current 177	 history1 history1	 history2 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D7647 ASTM D7647	300 370 2500 limit/base >15 >20 limit/base >5000 >1300	264 228 575 <1 current 0 1 <1 <1 current 177 42	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	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	300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	264 228 575 <1 0 1 <1 <1 <1 177 42 2	 history1 history1 history1	 history2 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4μm Particles >14μm Particles >21μm	ppm ppm ppm ppm ppm ppm ppm ppm	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	300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40	264 228 575 <1 current 0 1 <1 <1 current 177 42 2 0	 history1 history1 history1	 history2 history2 history2
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	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	300 370 2500 Imit/base >15 >20 Imit/base >5000 >1300 >160 >40 >10	264 228 575 <1 current 0 1 <1 <1 current 177 42 2 0 0 0	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4μm Particles >14μm Particles >21μm	ppm ppm ppm ppm ppm ppm ppm ppm	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	300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40	264 228 575 <1 current 0 1 <1 <1 current 177 42 2 0	 history1 history1 history1 	 history2 history2 history2



61

(Jml) 5k 4k 3k

2 Z 1k0k Apr4/24

1.00

(B/HOX B0.60 M0 KOH/d) Base

a 10.40 Pio 0.20

> 0.00 Apr4/24

52 Abnormal 50 48 (0-046 tso B

42

6

barticles (1 ml) 4k 3k

₫ 2k

0k Apr4/24

Abnorma 40 38 Apr4/24

Particle Trend

, 4μm

Particle Trend

Acid Number

Abnormal

Abnormal

Viscosity @ 40°C

μm 14µm

OIL ANALYSIS REPORT

		FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
		Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.36		
		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	Visual*	NONE	NONE		
		Yellow Metal	scalar	Visual*	NONE	NONE		
		Precipitate	scalar	Visual*	NONE	NONE		
	/24	Silt	scalar	Visual*	NONE	NONE		
	Apr4/24	Debris	scalar	Visual*	NONE	NONE		
		Sand/Dirt	scalar	Visual*	NONE	VLITE		
		Appearance	scalar	Visual*	NORML	NORML		
		Odor	scalar	Visual*	NORML	NORML		
		Emulsified Water	scalar	Visual*	>0.05	NEG		
		Free Water	scalar	Visual*		NEG		
		FLUID PROPER	ΓIES	method	limit/base	current	history1	history2
		Visc @ 40°C	cSt	ASTM D7279(m)	46	44.9		
	Apr4/24 -	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
	Ap							
		Color					no image	no image
	1							
		Dettern					na imaga	no imoro
		Bottom				53	no image	no image
	P.	GRAPHS				Deutiale Count		
	hA	Ferrous Alloys			491,520	Particle Count		T ²⁶
		iron			122,880			+24
		E. 5-			30,720	Severe		-22
		Apr4/24		*****************	Apr4/24 (per 1 ml) 1.920	Abnormal		-20
		Apri			Judy 1.920	-	•	+20 +18 +16 +14
		Non-ferrous Meta	s		sajoi tured. 480	· · · · ·		-16
		10 copper 1			ថ្មី ឆ្នាំ 120		N	+14
		been and been and			5			-12
	V C Pro	5						
	÷	0			8			+10
		Apr4/24			Apr4/24	-		-8
					Ϊ¥ O	4μ 6μ	14µ 21µ	38µ 71µ
		Viscosity @ 40°C			6	A -1 - L AL	45 V.	- <i>j</i>
		Abnormal			24 400.00 (mg K0H/g)	Abnormal		
		50 - Base 9+ 45 -			ے 1 – 0 50	Base		
		40 Abnormal			agung	Abnormal		
		35				1		
		Apr4/24			Apr4/24	Apr4/24		
		A			A	₹		
	Laboratory	: WearCheck - C8-117	5 Annleh	v line Rurlin	aton ON 171	5Н9 МАНГ		
CALA Testing Accreditation No. 1905219	Sample No.	: WC0905454	Recei		I Apr 2024		16 INDUSTRIA	
025:2017	Lab Number		Teste	ed :12	2 Apr 2024			TILBURY, O
			D:		Ame 0004 M	na Davia		CA N0P 2L
edited eratory	Unique Number Test Package		Diagr		2 Apr 2024 - W	es Davis	• • •	Kevin Bindn

Т 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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