

OIL ANALYSIS REPORT

Area **RECOVERY PRECOAT TK - AGIATATOR**

Component Gearbox Fluid

SHELL OMALA S4 WE 460 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

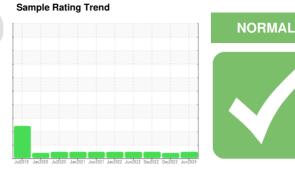
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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



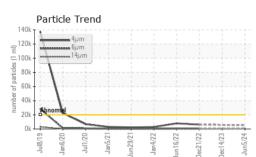


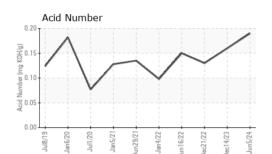
	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0915918	WC0887325	WC0771450
Sample Date		Client Info		05 Jun 2024	14 Dec 2023	21 Dec 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL
	N	method	limit/base		history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	0	0	<1
Chromium	ppm		>15	0	<1	0
Nickel		ASTM D5185m	>15	-	<1	1
Titanium	ppm		210	<1 0	< 1	0
Silver	ppm	ASTM D5185m		-		
0	ppm	ASTM D5185m	05	0	0	<1
Aluminum	ppm			1	2	<1
Lead	ppm	ASTM D5185m	>100	0	0	<1
Copper	ppm		>200	2	2	2
Tin	ppm	ASTM D5185m	>25	1	<1	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		1	0	0
Barium	ppm	ASTM D5185m		<1	10	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		3	<1	2
Calcium	ppm	ASTM D5185m		3	<1	<1
		AOTH DELOF			0.1.1	376
Phosphorus	ppm	ASTM D5185m		424	344	370
•	ppm ppm	ASTM D5185m ASTM D5185m		424 9	0	3
Zinc						
Zinc	ppm ppm	ASTM D5185m	limit/base	9	0	3
Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m		9 63 current	0 0 history1	3 83 history2
Zinc Sulfur CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m		9 63 current 12	0 0 history1 10	3 83 history2 9
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m method		9 63 current	0 0 history1	3 83 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>50	9 63 current 12 0 6	0 0 history1 10 5	3 83 history2 9 0
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>50 >20	9 63 current 12 0 6	0 0 history1 10 5 1	3 83 history2 9 0 1
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m Method	>50 >20 limit/base	9 63 current 12 0 6 current	0 0 history1 10 5 1	3 83 history2 9 0 1 1 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D7647	>50 >20 limit/base >20000	9 63 current 12 0 6 current 5397 716	0 0 history1 10 5 1 history1 	3 83 history2 9 0 1 1 history2 6025 585
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640	9 63 current 12 0 6 current 5397 716 32	0 0 history1 10 5 1 1 history1 	3 83 history2 9 0 1 1 history2 6025 585 15
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640 >160	9 63 current 12 0 6 current 5397 716 32 9	0 0 history1 10 5 1 1 history1 	3 83 history2 9 0 1 1 history2 6025 585 15 55
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >5000 >640 >160 >40	9 63 current 12 0 6 current 5397 716 32 9 1	0 0 10 5 1 <u>history1</u> 	3 83 history2 9 0 1 1 history2 6025 585 15 585 15 5 5 0
Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >5000 >640 >160 >40 >10	9 63 current 12 0 6 current 5397 716 32 9 1 0	0 0 10 5 1 history1 	3 83 history2 9 0 1 1 history2 6025 585 15 585 15 5 5 0 0 0
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm IESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c)	>50 >20 limit/base >20000 >5000 >640 >160 >40 >10 >10 >21/19/16	9 63 current 12 0 6 current 5397 716 32 9 1 1 0 20/17/12	0 0 10 5 1 10 5 1 1 <u>history1</u> 	3 83 history2 9 0 1 1 history2 6025 585 15 585 15 5 5 0 0 0 20/16/11
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm IESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >5000 >640 >160 >40 >10	9 63 current 12 0 6 current 5397 716 32 9 1 1 0 20/17/12	0 0 history1 10 5 1 history1 	3 83 history2 9 0 1 1 history2 6025 585 15 585 15 5 5 0 0 0

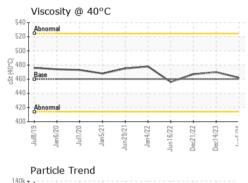
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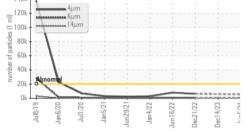


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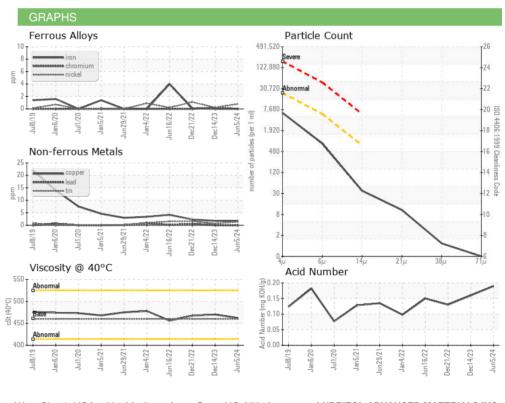








VISUAL		method	limit/base	current	history1	history2
NOUAL		memou		current	Thistory	
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	🔺 MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	460	462	470	467
SAMPLE IMAGES	\$	method	limit/base	current	history1	history2
						and the second se
Color						



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 LUBRIZOL ADVANCED MATERIALS INC Sample No. : WC0915918 Received : 10 Jun 2024 207 TELEGRAPH DR Lab Number : 06204561 Tested : 12 Jun 2024 GASTONIA, NC Unique Number : 11072022 Diagnosed : 12 Jun 2024 - Angela Borella US 28056 Test Package : IND 2 (Additional Tests: PrtCount) Contact: TIMOTHY DAVIS Certificate 12367 timothy.davis@lubrizol.com 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. T: (704)915-4131 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Report Id: LUBGAS [WUSCAR] 06204561 (Generated: 06/12/2024 18:49:19) Rev: 1

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