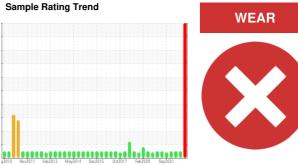


Area TC02

TC02

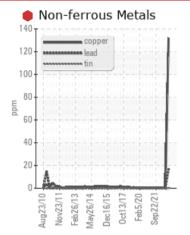
PROBLEM SUMMARY





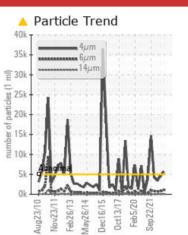
Component **Hydraulic System** TRIBOL HYDRAULIC 943AW-68 (--- LTR)

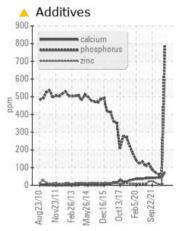
COMPONENT CONDITION SUMMARY



			iron chro nick	omiu cel	m		
		1					
T	10.5						
+							
-							
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-				1			
L			~		-	-	

ppm





RECOMMENDATION

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

PROBLEMATIC TEST RESULTS SEVERE Sample Status NORMAL NORMAL Iron ASTM D5185(m) >20 <1 ppm <1 Lead ASTM D5185(m) >20 **1**7 0 ppm <1 Copper ASTM D5185(m) >20 132 <1 <1 ppm Magnesium ASTM D5185(m) 36 <1 0 ppm **A** 74 44 43 Calcium ASTM D5185(m) ppm Phosphorus ppm ASTM D5185(m) 793 60 62 601 7 5 Zinc ASTM D5185(m) ppm

ISO 4406 (c) >19/17/14 A 20/17/13

2363

5668

198

4562

19/17/13

292

3383

19/17/13

ASTM D5185(m)

ASTM D7647 >5000

Sulfur ppm Particles >4µm **Oil Cleanliness**

Customer Id: GOONAP Sample No.: WC22128057 Lab Number: 02553618 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS								
Action	Status	Date	Done By	Description				
Resample			?	We advise an early resample to confirm this situation.				
Alert			?	NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.				

HISTORICAL DIAGNOSIS



05 Feb 2023 Diag: Kevin Marson

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



27 Oct 2022 Diag: Kevin Marson





Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

05 Nov 2021 Diag: Kevin Marson





Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

view report





OIL ANALYSIS REPORT





SAMPLE INFORM	ATION	method	limit/base	current	history1	history
Sample Number		Client Info		WC22128057	WC0754408	WC066409
Sample Date		Client Info		25 Apr 2023	05 Feb 2023	27 Oct 202
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				SEVERE	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history
PQ		ASTM D8184*		0		
Iron	ppm	ASTM D5185(m)	>20	A 36	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	<1	0	0
Nickel	ppm	ASTM D5185(m)	>20	2	<1	0
Titanium	ppm	ASTM D5185(m)		<1	<1	<1
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	8	0	<1
Lead	ppm	ASTM D5185(m)	>20	<u> </u>	0	<1
Copper	ppm	ASTM D5185(m)	>20	• 132	<1	<1
Tin	ppm	ASTM D5185(m)	>20	<1	0	0
Antimony	ppm	ASTM D5185(m)		<1	0	0
Vanadium	ppm	ASTM D5185(m)		<1	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		<1	0	0
ADDITIVES		method	limit/base	current	history1	history
Boron	ppm	ASTM D5185(m)		<1	<1	0
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)		A 36	<1	0
Calcium	ppm	ASTM D5185(m)		<u> </u>	44	43
Phosphorus	ppm	ASTM D5185(m)		A 793	60	62
Zinc	ppm	ASTM D5185(m)		<u> </u>	7	5
Sulfur	ppm	ASTM D5185(m)		A 2363	198	292
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history
Silicon	ppm	ASTM D5185(m)	>15	14	0	0
Sodium	ppm	ASTM D5185(m)		2	0	0
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
FLUID CLEANLINE	ESS	method	limit/base	current	history1	history
Particles >4µm		ASTM D7647	>5000	668	4562	3383
Particles >6µm		ASTM D7647	>1300	1055	791	712
		ASTM D7647	>160	57	51	64
Particles >14µm			10	10	10	22
Particles >14µm Particles >21µm		ASTM D7647	>40	13	13	~~
		ASTM D7647 ASTM D7647	>40 >10	13 1	1	2
Particles >21µm			>10			

Area TC02 Machine Id TC02 Component Hydraulic System Fluid TRIBOL HYDRAULIC 943AW-68 (--- LTR)

DIAGNOSIS

Recommendation

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

🛑 Wear

Copper ppm levels are severe. Iron and lead ppm levels are abnormal. Bearing wear is indicated. Oil cooler core leaching or motor piston wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear. NOTE: The color of the oil is darker then previous samples.



OIL ANALYSIS REPORT

^{40k} T	ticle T	0.0110						FLUID DEGRAD		method	limit/bas
35k -	4μr 6μr 14μ	n						Acid Number (AN)	mg KOH/g	ASTM D974*	
30k - 25k - 20k - 15k - 10k -	٨			1				VISUAL		method	limit/bas
5k -	1	٨		11			A	White Metal	scalar	Visual*	NONE
k Abn	Alan	N	100100	11	۸A		Λ	Yellow Metal	scalar	Visual*	NONE
k L	Lane			71	14	<u>vv</u>	Y.	Precipitate	scalar	Visual*	NONE
Aug23/10	23/11	Feb26/13	May26/14	Dec16/15	0ct13/17	Feb5/20	Sep22/21	Silt	scalar	Visual*	NONE
Aug2	Nov23/	Feb2	May2	Dec1	Octi	Feb	Sep	Debris	scalar	Visual*	NONE
Add	litives							Sand/Dirt	scalar	Visual*	NONE
	liuves) 10.11.11.11.11						Appearance	scalar	Visual*	NORML
	calc	ium Isphorus						Odor	scalar	Visual*	NORML
-	zino							Emulsified Water	scalar	Visual*	>0.05
-	and an a state of the state	August 10	~	-				Free Water	scalar	Visual*	
10				- ba	5			FLUID PROPER	RTIES	method	limit/bas
-						-	~	Visc @ 40°C	cSt	ASTM D7279(m)	68
Aug23/10	Nov23/11.	Feb26/13	May26/14	Dec16/15	Oct13/17 -	Feb5/20 -	Sep22/21-	SAMPLE IMAGI	ES	method	limit/bas
₹ PQ	Z	æ	W	ā	0		~				
0 								Color			
00 - Seve	re										
Aba	ormal							Bottom			
00 - Abn	ormal							Bottom			
00 Abn	ormal										
00 - Abn 50 -	ormal							Bottom			
00 - Abn 50 - 11/22/00	ormal	rend						GRAPHS A Ferrous Alloys			101
00 - Abn 50	ticle Ti	n]						GRAPHS Ferrous Alloys			491, 122
	ticle T	n		A				GRAPHS Ferrous Alloys			122
00 - Abn 50	ticle Ti 4µr 6µr	n		٨				GRAPHS Ferrous Alloys			122,
00 - Abn 50	ticle Ti 4µr 6µr	n		Λ				GRAPHS Ferrous Alloys	26/14 16/15	13.17 65.20 23.21	122,
00 Abn 50 0 11/22/09 Par 0k 5k 0k 5k 0k	ticle Ti Gun 14µ	n					Λ	GRAPHS Ferrous Alloys	May26/14 Dec16/15	Det13/17 Feb5/20 See2223	122,
Do - Abn 50 - Ulycom Par Dk - Dk -	ticle Ti Gun 14µ	n					Д	GRAPHS Ferrous Alloys	- 10 C	0et13/17 Feb5/20 Sea-22/27	122
	ticle Ti 4µn 14µ 14µ					20	Λ	GRAPHS Ferrous Alloys	- 10 C	0¢t13/17 Feb5/20 San020/21	122,
	ticle Ti 4µn 14µ 14µ		a/26/14	ecl6/15	Peti 3/17	Feb5/20	Λ	GRAPHS Ferrous Alloys	- 10 C	0ct13/17 Feb5/20 San227/21	122.
00 Abn 50 UL/EZANN 0 LL/EZANN 0k Par 0k Sk 0k 5k 0k 0k 5k 0k	ticle Ti Gun 14µ	n	May26/14 4	Dec16/15	Det13/17	Fab5,20	Sep22.21	GRAPHS Ferrous Alloys	- 10 C	0ct13/17 Feb5/20 Smr27271	122,
	ticle Ti 4µn 14µ 14µ		May26/14 4152	Dec16/15	Oct13/17	Feb5/20	Λ	GRAPHS Ferrous Alloys for a chromium chromium chromium nickel for a chromium nickel for a chromium nickel for a chromium nickel for a chromium for a chromium nickel for a chromium for a chrom	als		122, 30, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
00 - Abn 50 - 0 - 1,1,62,000 0 - 1,1,1,1,1,1,1,1,1,1,1,1,1,1	ticle Ti 6/20 14/21 14/2 14/2 14/2 14/2 14/2 14/2 14/	Feb26/13	May26/14	Dec16/15	Octi3/17	Feb5/20	Λ	GRAPHS Ferrous Alloys for a chromium chromium chromium nickel for a chromium nickel for a chromium nickel for a chromium nickel for a chromium for a chromium nickel for a chromium for a chrom	als		122, 30, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
	ticle Ti 6/21 14/2 14/2 Litezoog	n m m Etep56/13	Mar26/14	Dec16/15	Oct13/17	Fab520	Λ	GRAPHS Ferrous Alloys for a chromium chromium chromium for a chromium for a chromium fo	Dec16/15	0ct13/17 0ct13/17 0ct13/17 Feb5/20 Feb5/20 Feb5/20 Sen/32/21 Sen/32/21 Sen/32/21	122, 30, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
00 - Abn 50 - 0 - 10 - 10 - 10 - 10 - 10 - 10 - 1		n m m Etep56/13	Ma/2614	Dect 6/15	Det13/17	Feb5/20	Λ	CRAPHS Ferrous Alloys Ferrous Alloys Chromium nicke OUE2Dark Non-ferrous Met	Dec16/15		122, 30, 1, 1, 1, 30, 1, 1, 1, 3, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
	ticle Ti 6/21 14/2 14/2 Litezoog	n m m Etep56/13	Mar26/14	DectBrins	Octi3/17	Feb5/20	Λ	CRAPHS Ferrous Alloys Ferrous Alloys Chomium Close Cl	Dec16/15		122, 30, 1, 1, 1, 30, 1, 1, 1, 3, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
An An I UEZnow Par Adde A	ticle Ti 6/21 14/2 14/2 Litezoog	n m m Etep56/13	Mar2s/14	Dec16/15	0dt317	Fed5/20	Λ	CRAPHS Ferrous Alloys Ferrous Alloys Chomium Close Cl	Dec16/15		122, 30, 1, 1, 1, 30, 1, 1, 1, 3, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
50 0 1///27/00 0 1///27/00 1///27/00 0 1///27/00 0 1///27/00 0 1///27/00 0 1///27/00 0 0 1///27/00 0 0 1///27/00 0 0 0 0 0 0 0 0 0 0 0 0	ticle Ti 6/21 14/2 14/2 Litezoog	n m m Etep56/13	May26/14 4	Dec18/15	Odt13/17	Feb520	Λ	CRAPHS Ferrous Alloys Ferrous Alloys Chomium Copper Coppe	Dec16/15		122, 30, 1, 1, 1, 30, 1, 1, 1, 3, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
00 Anno 50 0 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2 50 10/2	ticle Ti 6/21 14/2 14/2 Litezoog	n m m Etep56/13	Mar/26/14	Dec16/15	0dt13/17	Fab5/20	Λ	CRAPHS Ferrous Alloys Ferrous Alloys Chomium II/VEDW Non-ferrous Met Copper Uiscosity @ 40°C Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Construction Copper Copper Construction Copper Cop	Dec16/15		(International Control of Control

current history1 history2

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NONE

NONE

NORML

NORML

NEG

NEG

65.9

0.12

NONE

NONE

NONE

NONE

NONE

NONE

NEG

NEG

65.7

NORML

NORML

