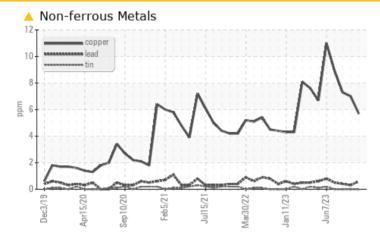


PROBLEM SUMMARY

CO-GEN #1 (S/N KB5)

Turbine Fluid MOBIL JET OIL II (130 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS Sample Status ABNORMAL ABNORMAL ABNORMAL Copper ppm ASTM D5185(m) >5 A 6 A 7 A 7

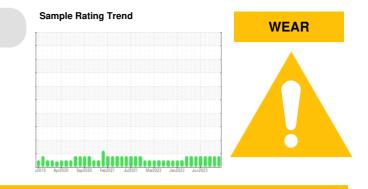
Customer Id: AVETOR Sample No.: WC0847670 Lab Number: 02588615 Test Package: IND 2



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 <u>gloria.gonzalez@wearcheck.com</u>



RECOMMENDED A	ACTIONS			
Action	Status	Date	Done By	Description
Resample			?	We recommend an early resample to monitor this condition.
Contact Required			?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert			?	NOTE: We recommend using IND 3 test kits,

HISTORICAL DIAGNOSIS



06 Sep 2023 Diag: Kevin Marson

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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

11 Aug 2023 Diag: Kevin Marson

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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.

10 Jul 2023 Diag: Kevin Marson

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

WEAR

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable





OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Machine Id CO-GEN #1 (S/N KB5) Component

Turbine Fluic MOBIL JET OIL II (130 GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

A Wear

Copper ppm levels are abnormal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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.

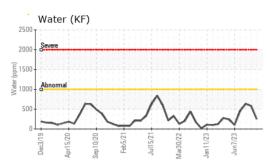
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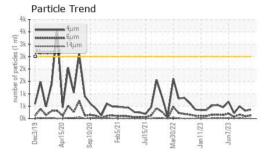
2019 Apr2020 Sep2020 Feb2021 Jul2021 Mar2027 Jan2023 Jun2023

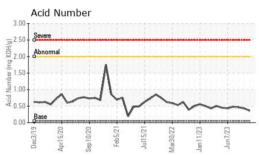
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0847670	WC0847660	WC0781349
Sample Date		Client Info		10 Oct 2023	06 Sep 2023	11 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>15	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>4	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	0	<1	<1
Lead	ppm	ASTM D5185(m)		<1	<1	<1
Copper	ppm	ASTM D5185(m)	>5	<u> </u>	<u> </u>	<u> </u>
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0.5	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0.0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	0	0	0
Manganese	ppm	ASTM D5185(m)	0.0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	0	0	<1
Calcium	ppm	ASTM D5185(m)	0.0			
Dharashaan	ppiii	ASTIVI D3103(III)	0.0	<1	<1	<1
Phosphorus	ppm	ASTM D5185(m)	3039	<1 1884	<1 1807	<1 1871
Phosphorus Zinc		. ,				
	ppm	ASTM D5185(m)	3039	1884	1807	1871
Zinc	ppm ppm	ASTM D5185(m) ASTM D5185(m)	3039 0.3	1884 <1	1807 1	1871 1
Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	3039 0.3	1884 <1 4	1807 1 6	1871 1 4
Zinc Sulfur Lithium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	3039 0.3 38	1884 <1 4 <1	1807 1 6 <1	1871 1 4 <1
Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	3039 0.3 38 limit/base	1884 <1 4 <1 current	1807 1 6 <1 history1	1871 1 4 <1 history2
Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	3039 0.3 38 limit/base	1884 <1 4 <1 current 0	1807 1 6 <1 <u>history1</u> <1	1871 1 4 <1 history2 0
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	3039 0.3 38 limit/base >15	1884 <1 4 <1 <u>current</u> 0 <1 0	1807 1 6 <1 <u>history1</u> <1 <1	1871 1 4 <1 history2 0 <1
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	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)	3039 0.3 38 limit/base >15 >20	1884 <1 4 <1 <u>current</u> 0 <1	1807 1 6 <1 <u>history1</u> <1 <1 <1	1871 1 4 <1 history2 0 <1 <1
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	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)	3039 0.3 38 limit/base >15 >20 >.1	1884 <1 4 <1 current 0 <1 0 0 0.025	1807 1 6 <1 history1 <1 <1 <1 <1 0.058	1871 1 4 <1 history2 0 <1 <1 <1 0.063
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	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 D6304* ASTM D6304*	3039 0.3 38 limit/base >15 >20 >.1 >1000	1884 <1 4 <1 current 0 <1 0 0.025 250.6	1807 1 6 <1 history1 <1 <1 <1 <1 0.058 580.7	1871 1 4 <1 history2 0 <1 <1 <1 0.063 633.5
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water 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 D6304* ASTM D6304*	3039 0.3 38 limit/base >15 >20 >.1 >1000 limit/base	1884 <1 4 <1 0 0 <1 0 0 0.025 250.6 current	1807 1 6 <1 *1 *1 <1 <1 <1 0.058 580.7 history1	1871 1 4 <1 history2 0 <1 <1 0.063 633.5 history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water 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 D6304* ASTM D6304* ASTM D6304	3039 0.3 38 Iimit/base >15 >20 >.1 >1000 Iimit/base >2500	1884 <1 4 <1 0 ((1 0 0 0.025 250.6 (urrent 357	1807 1 6 <1 history1 <1 <1 <1 <1 <1 0.058 580.7 history1 314	1871 1 4 <1 0 (1 <1 (0.063 633.5 history2 498
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water 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 D6304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647	3039 0.3 38 Imit/base >15 >20 >.1 >1000 Imit/base >2500 >640 >80	1884 <1 4 <1 0 (1) 0 <1 0 0.025 250.6 (urrent) 357 128	1807 1 6 <1 history1 <1 <1 <1 <1 <1 <1 0.058 580.7 history1 314 92	1871 1 4 <1 0 (1 <1 (1) (0.063 (633.5) history2 498 162
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water 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 D5304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647	3039 0.3 38 Imit/base >15 >20 >.1 >1000 Imit/base >2500 >640 >80	1884 <1 4 <1 0 (1) 0 <1 0 0.025 250.6 0 0.025 250.6 0 0 2550.6 0 0 128 11	1807 1 6 <1 history1 <1 <1 <1 <1 <1 0.058 580.7 history1 314 92 11	1871 1 4 <1 0 <1 <1 <1 0.063 633.5 history2 498 162 14
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm 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 D5185(m) ASTM D5047 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	3039 0.3 38 Imit/base >15 >20 >.1 >1000 Imit/base >2500 >640 >80 >20 >20	1884 <1 4 <1 0 (1 0 (1) 0 (1) 250.6 (1) 250.6 (1) 250.6 (1) 250.6 (1) 250.6 (1) 250.6 (1) 250.6 (1) 250.6 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	1807 1 6 <1 history1 <1 <1 <1 <1 0.058 580.7 history1 314 92 11 4	1871 1 4 <1 history2 0 <1 <1 0.063 633.5 history2 498 162 14 5



OIL ANALYSIS REPORT







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FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.05	0.36	0.43	0.46
VISUAL		method	limit/base	current	history1	history2
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	NONE	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*	>.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	25.4	29.5	30.3	29.7
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
Color						



