

WEAR CONTAMINATION FLUID CONDITION

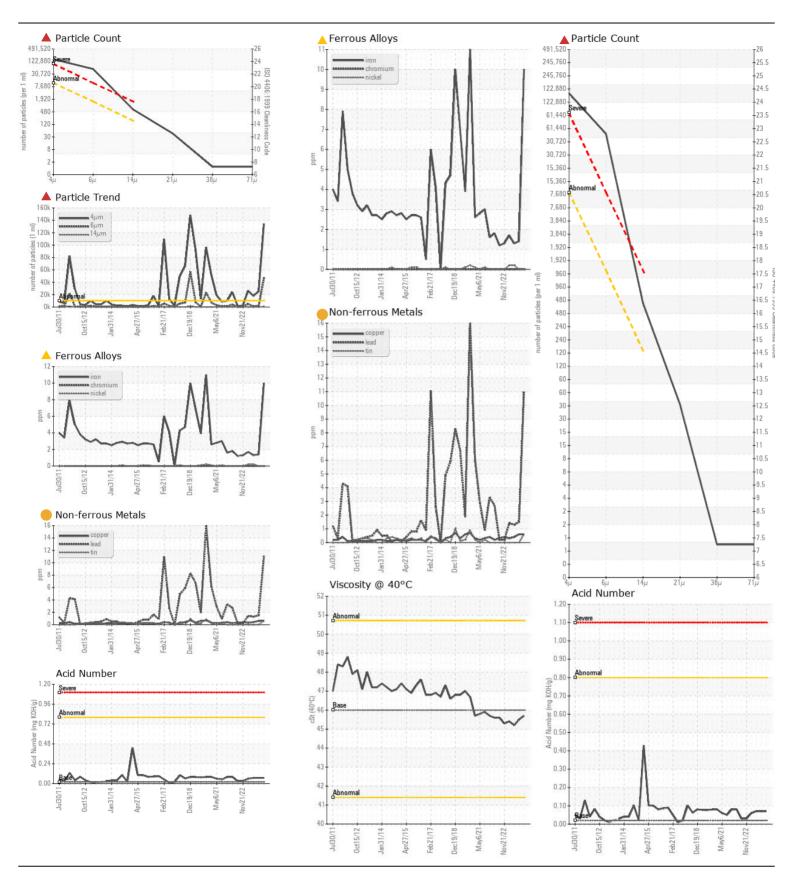
ABNORMAL SEVERE NORMAL

SAB1 Machine Id SAB1 G6

Component Turbine Bearing							
ESSO TERESSO ISO 46 (150 LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
TESSIMILERBATION	Sample Number		Client Info		WC0812558	WC0642846	WC0828622
Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.	Sample Date		Client Info		15 May 2024	21 Dec 2023	27 Aug 2023
	Machine Age	hrs	Client Info		0	0	0
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				SEVERE	ABNORMAL	ATTENTION
WEAR Iron ppm levels are abnormal. Lead ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.	PQ		ASTM D8184*		0	0	0
	Iron	ppm	ASTM D5185(m)	>7	<u> </u>	1	1
	Chromium	ppm	ASTM D5185(m)		0	0	0
	Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
	Titanium	ppm	ASTM D5185(m)		0	0	0
	Silver	ppm	ASTM D5185(m)		0	0	0
	Aluminum	ppm	ASTM D5185(m)		0	<1	<1
	Lead	ppm	ASTM D5185(m)		11	2	1
	Copper	ppm	ASTM D5185(m)		<1	<1	<1
	Tin Vanadium	ppm	ASTM D5185(m)	>0	<1 0	0	0
	White Metal	ppm scalar	ASTM D5185(m) Visual*	NONE	NONE	NONE	VLITE
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>20	<1	5	5
There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.	Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
	Water		WC Method	>2	NEG	NEG	NEG
	Particles >4µm		ASTM D7647		134041	<u>\$\text{\Delta}\$ 25335</u>	17888
	Particles >6µm		ASTM D7647		46308	1527	1172
	Particles >14µm		ASTM D7647		<u>^</u> 554	12	8
	Particles >21µm		ASTM D7647		39	4	1
	Particles >38µm Particles >71µm		ASTM D7647 ASTM D7647		1	0	0
	Oil Cleanliness		ISO 4406 (c)		<u>4</u> 24/23/16	<u>^</u> 22/18/11	21/17/10
	Silt	scalar	Visual*	NONE	LIGHT	NONE	NONE
	Debris	scalar	Visual*	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
	Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
	Odor	scalar	Visual*	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	Visual*	>2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		1	0	0
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.	Boron	ppm	ASTM D5185(m)	0	0	0	0
	Barium	ppm	ASTM D5185(m)		0	0	0
	Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
	Manganese	ppm	ASTM D5185(m)	0	0	0	0
	Magnesium	ppm	ASTM D5185(m)		2	0	0
	Calcium	ppm	ASTM D5185(m)		11	<1	<1
	Phosphorus Zinc	ppm	ASTM D5185(m)		2	3	2
	Sulfur	ppm	ASTM D5185(m) ASTM D5185(m)	U	616	<1 709	678
	Acid Number (AN)	mg KOH/g	ASTM D3103(III)	0.02	0.07	0.07	0.07
	Vice @ 40°C	0 0	ACTM D7970(m)		45.7	0.07 45 5	45.0

45.5 45.2

45.7





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0812558 : 02636094

Unique Number : 5785256

Received : 16 May 2024 **Tested** Diagnosed

: 21 May 2024

: 21 May 2024 - Kevin Marson Test Package: IND 2 (Additional Tests: PQ, PrtCount, TAN Man)

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Ontario Power Generation

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.