

OIL ANALYSIS REPORT

Sample Rating Trend **WEAR**

AERZEN BLOWER 2 (S/N 15279) Component

Blower Fluic USPI AIR 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition.

A Wear

The iron level is abnormal.

Contamination

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

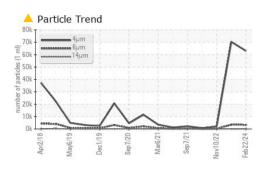
Fluid Condition

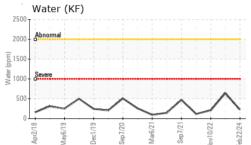
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

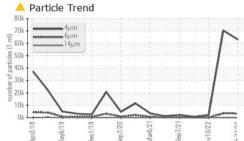
Sample Date Client Info 22 Feb 2024 27 Jul 2023 10 Nov 20 Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Image Client Info N/A A/A N/A N/A WEAR METALS method Imit/base current history1 history1 Iron ppm ASTM D585m >20 4 46 4 6 Chromium ppm ASTM D585m >20 <1	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 1 0 0 Nickel ppm ASTM D5185m >20 <1	Sample Number		Client Info		USPM30100	USPM27227	USPM25705
Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history1 Iron ppm ASTM D5185m >20 ▲ 46 4 6 Chromium ppm ASTM D5185m >20 <1	Sample Date		Client Info		22 Feb 2024	27 Jul 2023	10 Nov 2022
Oil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history1 WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 1 0 0 Nickel ppm ASTM D5185m >20 <1 0 0 Silver ppm ASTM D5185m >20 <1 0 1 0 Copper ppm ASTM D5185m >20 <1 0 1 Quadition ppm ASTM D5185m >20 <1 0 <1 Aluminum ppm ASTM D5185m >20 1 <1 0 <1 Qanadium ppm ASTM D5185m >20 1 <1 0 <1 Barium ppm ASTM D5185m 0 <1 0 <1 0 Barium ppm AS	Machine Age	hrs	Client Info		0	0	0
Sample Status method limit/base current history1 history1 Iron ppm ASTM D5185m >20 ▲ 46 4 6 Chromium ppm ASTM D5185m >20 <1	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history1 history1 Iron ppm ASTM D5185m >20 ▲ 46 4 6 Chromium ppm ASTM D5185m >20 1 0 0 Nickel ppm ASTM D5185m >20 <1	Oil Changed		Client Info		N/A	N/A	N/A
Iron ppm ASTM D5185m >20 46 4 6 Chromium ppm ASTM D5185m >20 1 0 0 Nickel ppm ASTM D5185m >20 <1	Sample Status				ABNORMAL	ATTENTION	NORMAL
Dromium ppm ASTM D5185m >20 1 0 0 Nickel ppm ASTM D5185m >20 <1 0 <1 Titanium ppm ASTM D5185m <20 <1 0 1 Silver ppm ASTM D5185m >20 <1 0 0 Lead ppm ASTM D5185m >20 <1 0 0 Copper ppm ASTM D5185m >20 1 <1 <1 <1 Vanadium ppm ASTM D5185m >20 1 <1 0 <1 0 ACdmium ppm ASTM D5185m >20 1 <1 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >20 <1 0 <1 Titanium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>20	4 6	4	6
Titanium ppm ASTM D5185m <1 <1 0 Silver ppm ASTM D5185m >20 <1	Chromium	ppm	ASTM D5185m	>20	1	0	0
Silver ppm ASTM D5185m <1 0 1 Aluminum ppm ASTM D5185m >20 <1	Nickel	ppm	ASTM D5185m	>20	<1	0	<1
Aluminum ppm ASTM D5185m >20 <1 2 0 Lead ppm ASTM D5185m >20 1 0 0 Copper ppm ASTM D5185m >20 1 0 <1	Titanium	ppm	ASTM D5185m		<1	<1	0
Aluminum ppm ASTM D5185m >20 <1 2 0 Lead ppm ASTM D5185m >20 1 0 -1 Copper ppm ASTM D5185m >20 1 0 -1 Tin ppm ASTM D5185m >20 1 -1 -1 Vanadium ppm ASTM D5185m >20 1 -1 0 Cadmium ppm ASTM D5185m 0 0 -1 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 -1 0 0 Molybdenum ppm ASTM D5185m 0 -1 0 0 Maganese ppm ASTM D5185m 0 -1 0 0 Calcium ppm ASTM D5185m 0 1 0 0 Sulfur ppm ASTM D5185m 0 2 0	Silver		ASTM D5185m		<1	0	1
Lead ppm ASTM D5185m >20 <1 0 0 Copper ppm ASTM D5185m >20 1 <1	Aluminum		ASTM D5185m	>20	<1	2	0
Copper ppm ASTM D5185m >20 1 0 <1 Tin ppm ASTM D5185m >20 1 <1	Lead		ASTM D5185m	>20	<1	0	0
Tin ppm ASTM D5185m >20 1 <1 <1 <1 Vanadium ppm ASTM D5185m 0 <1	Copper		ASTM D5185m	>20			<1
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m <1			ASTM D5185m	>20	1	<1	<1
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1	Vanadium						
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1							
Barium ppm ASTM D5185m 0 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 0 1 0 0 0 Calcium ppm ASTM D5185m 0 1 0 0 0 Zinc ppm ASTM D5185m 0 8 0 11 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m 0 8 0 11 Potassium ppm ASTM D5185m >20 1 1 <1 Vater % ASTM D6304 >0.2 0.022 0.064 0.020 ppm Water ppm <td< th=""><th>ADDITIVES</th><th></th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m	0	0	0	<1
Manganese ppm ASTM D5185m <1 0 0 Magnesium ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 0 <1 <1 0 Calcium ppm ASTM D5185m 0 1 0 0 Phosphorus ppm ASTM D5185m 1 0 8 9 Zinc ppm ASTM D5185m 0 2 0 0 Sulfur ppm ASTM D5185m 0 8 0 11 CONTAMINANTS method limit/base current history1 histor Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >20 1 1 <1	Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Calcium ppm ASTM D5185m 0 1 0 0 Phosphorus ppm ASTM D5185m 1 0 8 9 Zinc ppm ASTM D5185m 0 2 0 0 Sulfur ppm ASTM D5185m 0 8 0 11 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >20 1 1 <1	Manganese	ppm	ASTM D5185m		<1	0	0
Phosphorus ppm ASTM D5185m 1 0 8 9 Zinc ppm ASTM D5185m 0 2 0 0 Sulfur ppm ASTM D5185m 0 8 0 11 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >20 1 1 <1	Magnesium	ppm	ASTM D5185m	0	<1	<1	0
Zinc ppm ASTM D5185m 0 2 0 0 Sulfur ppm ASTM D5185m 0 8 0 11 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >20 1 1 <1	Calcium	ppm	ASTM D5185m	0	1	0	0
Sulfur ppm ASTM D5185m 0 8 0 11 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >20 1 1 <1 Potassium ppm ASTM D5185m >20 1 1 <1 Water % ASTM D6304 >0.2 0.022 0.064 0.020 ppm Water ppm ASTM D6304 >2000 224 641.5 208.5 FLUID CLEANLINESS method limit/base current history1 histor Particles >4µm ASTM D7647 >2000 3267 3487 182 Particles >5µm ASTM D7647 >320 23 42 10 Particles >21µm ASTM D7647 20 0 1	Phosphorus	ppm	ASTM D5185m	1	0	8	9
CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m 0 <1	Zinc	ppm	ASTM D5185m	0	2	0	0
Silicon ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >15 9 9 2 Sodium ppm ASTM D5185m >20 1 1 <1 Potassium ppm ASTM D5185m >20 1 1 <1	Sulfur	ppm	ASTM D5185m	0	8	0	11
Sodium ppm ASTM D5185m 0 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 1 1 <1 Water % ASTM D6304 >0.2 0.022 0.064 0.020 ppm ASTM D6304 >2000 224 641.5 208.5 FLUID CLEANLINESS method limit/base current history1 histor Particles >4µm ASTM D7647 >2500 ▲ 3267 ▲ 3487 182 Particles >6µm ASTM D7647 >220 ④ 1 ○ Particles >14µm ASTM D7647 >320 23 42 10 Particles >21µm ASTM D7647 >20 0 1 0 Particles >38µm ASTM D7647 >20 0 1 0 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	Silicon	ppm	ASTM D5185m	>15	9	9	2
Water % ASTM D6304 >0.2 0.022 0.064 0.020 ppm Water ppm ASTM D6304 >2000 224 641.5 208.5 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 62994 70338 2117 Particles >6µm ASTM D7647 >2500 ▲ 3267 ▲ 3487 182 Particles >14µm ASTM D7647 >320 23 42 10 Particles >21µm ASTM D7647 >20 0 1 0 Particles >38µm ASTM D7647 >20 0 1 0 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	Sodium	ppm	ASTM D5185m		0	<1	<1
ppm Water ppm ASTM D6304 >2000 224 641.5 208.5 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 62994 70338 2117 Particles >6µm ASTM D7647 >2500 3267 ▲ 3487 182 Particles >6µm ASTM D7647 >320 23 42 10 Particles >14µm ASTM D7647 >80 3 13 2 Particles >21µm ASTM D7647 >20 0 1 0 Particles >38µm ASTM D7647 >20 0 1 0 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	Potassium	ppm	ASTM D5185m	>20	1	1	<1
FLUID CLEANLINESS method limit/base current history1 histor Particles >4 μ m ASTM D7647 62994 70338 2117 Particles >6 μ m ASTM D7647 >2500 3267 3487 182 Particles >14 μ m ASTM D7647 >320 23 42 10 Particles >21 μ m ASTM D7647 >80 3 13 2 Particles >38 μ m ASTM D7647 >20 0 1 0 Particles >71 μ m ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	Water	%	ASTM D6304	>0.2	0.022	0.064	0.020
Particles >4μm ASTM D7647 62994 70338 2117 Particles >6μm ASTM D7647 >2500 3267 3487 182 Particles >14μm ASTM D7647 >320 23 42 10 Particles >14μm ASTM D7647 >80 3 13 2 Particles >21μm ASTM D7647 >20 0 1 0 Particles >38μm ASTM D7647 >20 0 1 0 Particles >71μm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	ppm Water	ppm	ASTM D6304	>2000	224	641.5	208.5
Particles >6μm ASTM D7647 >2500 ▲ 3267 ▲ 3487 182 Particles >14μm ASTM D7647 >320 23 42 10 Particles >21μm ASTM D7647 >80 3 13 2 Particles >21μm ASTM D7647 >80 3 13 2 Particles >38μm ASTM D7647 >20 0 1 0 Particles >71μm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14µm ASTM D7647 >320 23 42 10 Particles >21µm ASTM D7647 >80 3 13 2 Particles >38µm ASTM D7647 >20 0 1 0 Particles >38µm ASTM D7647 >20 0 1 0 Particles >71µm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 ▲ 23/19/12 ▲ 23/19/13 18/15/1	Particles >4µm		ASTM D7647		62994	70338	2117
Particles >21μm ASTM D7647 >80 3 13 2 Particles >38μm ASTM D7647 >20 0 1 0 Particles >71μm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 ▲ 23/19/12 ▲ 23/19/13 18/15/1			ASTM D7647	>2500	3267	▲ 3487	182
Particles >38μm ASTM D7647 >20 0 1 0 Particles >71μm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 23/19/12 23/19/13 18/15/1	Particles >14µm		ASTM D7647	>320	23	42	10
Particles >71μm ASTM D7647 >4 0 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 ▲ 23/19/12 ▲ 23/19/13 18/15/1	Particles >21µm		ASTM D7647	>80	3	13	2
Oil Cleanliness ISO 4406 (c) >/18/15 ▲ 23/19/12 ▲ 23/19/13 18/15/1	Particles >38µm		ASTM D7647	>20	0	1	0
	Particles >71µm		ASTM D7647	>4	0	0	0
FLUID DEGRADATION method limit/base current history1 histor	Oil Cleanliness		ISO 4406 (c)	>/18/15	23/19/12	▲ 23/19/13	18/15/10
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045 0.05 0.089 0.10 0.10	Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	0.089	0.10	0.10



OIL ANALYSIS REPORT







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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	49.7	47.8	50.6	50.3
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					Blower Blower #2 WC ID: 3170914 LANMEL	Wer Hr # 2 W170914

Bottom

