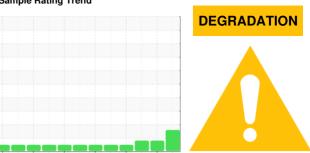


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

QUINCY 10068 (S/N BU11052501)

Compressor

USPI MAX FG AIR 46 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

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.

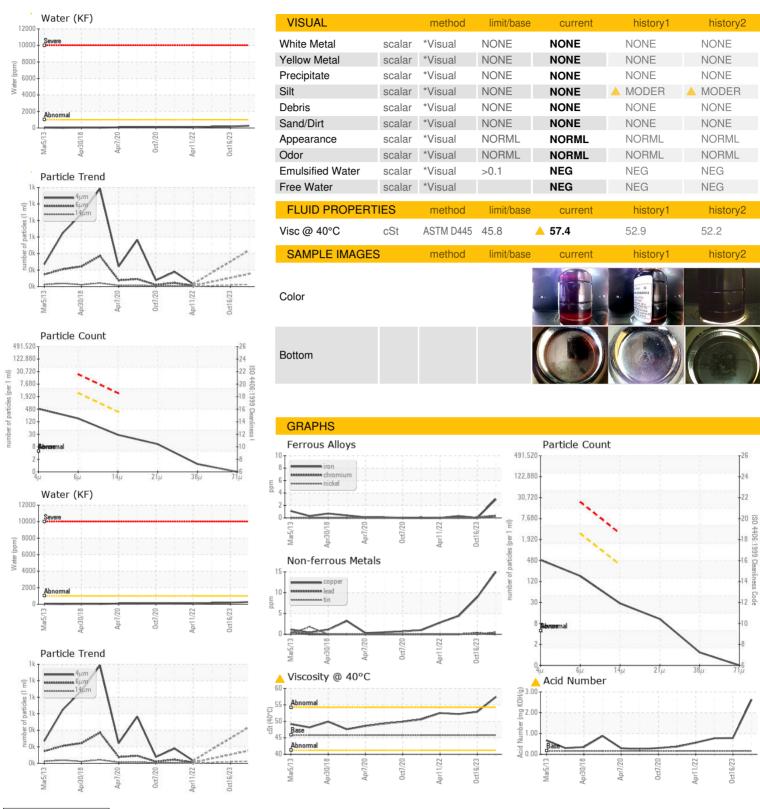
▲ Fluid Condition

The AN level is above the recommended limit. The oil viscosity is higher than normal.

SAMPLE INFORMATION method limit/base current history1 history2			Mar2013	Apr2018 Apr2020	0eł2020 Apr2022 0	et2023	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 27484 26915 26130 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >50 3 0 <1	Sample Number		Client Info		USPM36774	USPM31278	USPM28940
Oil Age hrs Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history2 Iron ppm ASTM D6185m >50 3 0 <1 Chromium ppm ASTM D6185m >50 3 0 <1 Chromium ppm ASTM D6185m >50 3 0 <1 Chromium ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m >10 0 0 0 Aluminum ppm ASTM D5185m >25 2 <1 0 Aluminum ppm ASTM D5185m >25 15 9 4 Tin ppm ASTM D5185m >50 15 9 4 Tin ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 <t< td=""><td>Sample Date</td><td></td><td>Client Info</td><td></td><th>15 Apr 2024</th><td>16 Oct 2023</td><td>19 May 2023</td></t<>	Sample Date		Client Info		15 Apr 2024	16 Oct 2023	19 May 2023
Oil Changed Satus Client Info N/A N/A N/A ABNORMAL ABNORMAL	Machine Age	hrs	Client Info		27484	26915	26130
Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >50 3 0 <1	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 3 0 <1	Oil Changed		Client Info		N/A	N/A	N/A
Iron	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Chromium ppm ASTM D5185m >10 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m	Iron	ppm	ASTM D5185m	>50	3	0	<1
Titanium ppm ASTM D5185m	Chromium	ppm	ASTM D5185m	>10	<1	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >2.5 2 <1 0 Lead ppm ASTM D5185m >2.5 0 <1 0 Copper ppm ASTM D5185m >50 15 9 4 Tin ppm ASTM D5185m >15 <1 0 0 Vanadium ppm ASTM D5185m <1 0 0 0 Cadmium ppm ASTM D5185m <1 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <1 0 0 ADITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <1 0 0 ABARIM D5185m 0 <1 0 0 <1 0 0	Nickel	ppm	ASTM D5185m		<1	<1	0
Aluminum ppm ASTM D5185m >25 2 <1 0 Lead ppm ASTM D5185m >25 0 <1	Titanium	ppm	ASTM D5185m		<1	0	0
Lead	Silver	ppm	ASTM D5185m		0	0	0
Copper	Aluminum	ppm	ASTM D5185m	>25	2	<1	0
Copper	Lead	ppm	ASTM D5185m	>25	0	<1	0
Tin ppm ASTM D5185m >15 <1 0 0 0 Vanadium ppm ASTM D5185m <1 0 0 0 Cadmium ppm ASTM D5185m <1 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 <1 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 0 Manganese ppm ASTM D5185m 0 0 <1 0 0 Manganese ppm ASTM D5185m 0 0 0 0 0 0 Manganesium ppm ASTM D5185m 0 0 0 0 0 0 0 Manganesium ppm ASTM D5185m 0 0 0 0 0 0 0 0 Manganesium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Copper		ASTM D5185m	>50	15	9	4
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 0 <1 <1 0 Calcium ppm ASTM D5185m 0 <1 <1 0 Phosphorus ppm ASTM D5185m 0 2 <1 0 Phosphorus ppm ASTM D5185m 0 26 4 0 Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 <1 <t< td=""><td></td><td></td><td></td><td></td><th><1</th><td>0</td><td>0</td></t<>					<1	0	0
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 <1	Vanadium		ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0 0 0 0 0 0 0 0 0	Cadmium		ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 0 <1 <1 0 Calcium ppm ASTM D5185m 0 2 <1 0 Phosphorus ppm ASTM D5185m 0 26 3 3 Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >25 2 1 1 Vater % ASTM D5185m 20 2 1 1 Vater % ASTM D5185m 20 2 1	Boron	ppm	ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 < 1 < 1 0 Magnesium ppm ASTM D5185m 0 < 1 < 1 0 Calcium ppm ASTM D5185m 0 2 < 1 0 Phosphorus ppm ASTM D5185m 0 6 3 3 Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 < 1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >25 2 1 < 1	Barium	ppm	ASTM D5185m	0	<1	0	0
Magnesium ppm ASTM D5185m 0 <1 <1 0 Calcium ppm ASTM D5185m 0 2 <1 0 Phosphorus ppm ASTM D5185m 0 6 3 3 Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >20 2 1 <1 Potassium ppm ASTM D5185m >20 2 1 <1 Water % ASTM D6185m >20 2 1 0 Water % ASTM D6185m >20 2 1 0 Particles > 4µm ASTM D6304 >0.0 279 170.0 148.6<	Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Calcium ppm ASTM D5185m 0 2 <1 0 Phosphorus ppm ASTM D5185m 0 6 3 3 Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 <1	Manganese	ppm	ASTM D5185m		0	0	<1
Phosphorus ppm ASTM D5185m 0 6 3 3 Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >25 2 1 1 Potassium ppm ASTM D5185m >20 2 <1	Magnesium	ppm	ASTM D5185m	0	<1	<1	0
Zinc ppm ASTM D5185m 0 26 4 0 Sulfur ppm ASTM D5185m 0 0 7 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >20 2 1 <1 Potassium ppm ASTM D5185m >20 2 1 0 Water % ASTM D6185m >20 2 1 0 Water % ASTM D6185m >20 2 1 0 Water % ASTM D6185m >20 2 1 0 Water % ASTM D6304 >0.01 0.027 0.017 0.014 Particles >4µm ASTM D7647 >2500 153 Particles >4µm ASTM D7647 >80 9 <td>Calcium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>2</th> <td><1</td> <td>0</td>	Calcium	ppm	ASTM D5185m	0	2	<1	0
Zinc	Phosphorus	ppm	ASTM D5185m	0	6	3	3
Sulfur ppm ASTM D5185m 0 0 7 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >20 2 1 0 Potassium ppm ASTM D5185m >20 2 1 0 Water % ASTM D5185m >20 2 1 0 Water % ASTM D5185m >20 2 1 0 Water % ASTM D6304 >0.01 0.027 0.017 0.014 ppm Water ppm ASTM D6304 >1000 279 170.0 148.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >2500 153 Particles >21µm ASTM D7647 >80		ppm	ASTM D5185m	0	26	4	0
Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m 2 1 <1 Potassium ppm ASTM D5185m >20 2 <1 0 Water % ASTM D6304 >0.1 0.027 0.017 0.014 ppm Water ppm ASTM D6304 >1000 279 170.0 148.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 153 Particles >6μm ASTM D7647 >320 25 Particles >21μm ASTM D7647 >80 9 Particles >38μm ASTM D7647 >20 1 Particles >71μm ASTM D7647 >4 0 Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 <	Sulfur		ASTM D5185m	0	0	7	<1
Sodium ppm ASTM D5185m 2 1 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 2 1 <1 Potassium ppm ASTM D5185m >20 2 <1	Silicon	mag	ASTM D5185m	>25	2	1	1
Potassium ppm ASTM D5185m >20 2 <1 0 Water % ASTM D6304 >0.1 0.027 0.017 0.014 ppm Water ppm ASTM D6304 >1000 279 170.0 148.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 2500 153 Particles >14μm ASTM D7647 >320 25 Particles >21μm ASTM D7647 >80 9 Particles >38μm ASTM D7647 >20 1 Particles >71μm ASTM D7647 >4 0 Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 FLUID DEGRADATION method limit/base current history1 history2	Sodium				2	1	<1
Water % ASTM D6304 >0.1 0.027 0.017 0.014 ppm Water ppm ASTM D6304 >1000 279 170.0 148.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 153 Particles >14μm ASTM D7647 >320 25 Particles >21μm ASTM D7647 >80 9 Particles >38μm ASTM D7647 >20 1 Particles >71μm ASTM D7647 >4 0 Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 FLUID DEGRADATION method limit/base current history1 history2	Potassium		ASTM D5185m	>20	2	<1	0
ppm Water ppm ASTM D6304 >1000 279 170.0 148.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 438 Particles >6μm ASTM D7647 >2500 153 Particles >14μm ASTM D7647 >320 25 Particles >21μm ASTM D7647 >80 9 Particles >38μm ASTM D7647 >20 1 Particles >71μm ASTM D7647 >4 0 Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 FLUID DEGRADATION method limit/base current history1 history2	Water		ASTM D6304	>0.1	0.027	0.017	0.014
Particles >4μm ASTM D7647 438 Particles >6μm ASTM D7647 >2500 153 Particles >14μm ASTM D7647 >320 25 Particles >21μm ASTM D7647 >80 9 Particles >38μm ASTM D7647 >20 1 Particles >71μm ASTM D7647 >4 0 Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 FLUID DEGRADATION method limit/base current history1 history2							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Particles >4µm		ASTM D7647		438		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Particles >6µm		ASTM D7647	>2500	153		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Particles >14µm		ASTM D7647	>320	25		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Particles >21µm		ASTM D7647	>80	9		
Particles >71μm ASTM D7647 >4 0 Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 FLUID DEGRADATION method limit/base current history1 history2	•		ASTM D7647	>20	1		
Oil Cleanliness ISO 4406 (c) >/18/15 16/14/12 FLUID DEGRADATION method limit/base current history1 history2			ASTM D7647	>4	0		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.16	2.63		



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number

: USPM36774 : 06156010 Unique Number : 10991433 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 22 Apr 2024 Tested : 23 Apr 2024

Diagnosed : 24 Apr 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact: DAVID WEYNAND david.weynand@bluebell.com T:

1101 S HORTON, P.O. BOX 1807

BLUE BELL-BRENHAM

BRENHAM, TX

F: (979)830-2199

US 77834

Report Id: BLUBRE [WUSCAR] 06156010 (Generated: 04/24/2024 16:57:30) Rev: 1

Contact/Location: DAVID WEYNAND - BLUBRE