

OIL ANALYSIS REPORT

Sample Rating Trend





Compressor

KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

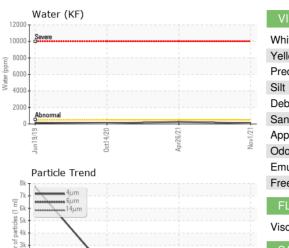
Fluid Condition

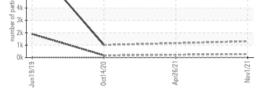
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

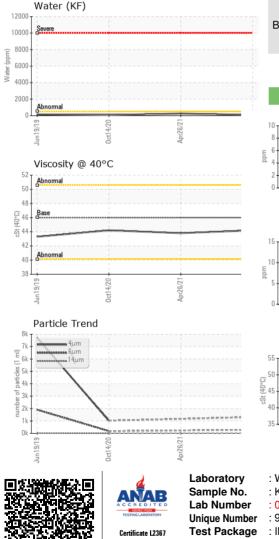
SAMPLE INFORMATION method Imit/base current history1 history2 Sample Number Client Info IN KC86494 KC86336 KC72897 Machine Age hrs Client Info 5003 6376 5052 Oil Age hrs Client Info 2951 1331 3126 Oil Changed Client Info Changed Not Changed Not RMAL NORMAL RNORMAL NORMAL VEAR METALS method Imit/base current Not Changed Not Changed Nickel ppm ASTM 05185m >50 1 <1 <1 VEAR METALS method Imit/base current Not Changed Not Changed Nickel ppm ASTM 05185m >50 1 <1 <1 Itanium ppm ASTM 05185m >10 0 0 0 Chromium ppm ASTM 05185m >10 0 0 0 Chandium ppm ASTM 05185m <t< th=""><th></th><th></th><th>Jun201</th><th>9 Oct2020</th><th>Apr2021</th><th>Nov2021</th><th></th></t<>			Jun201	9 Oct2020	Apr2021	Nov2021	
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Machine Age hrs Client Info 8003 6376 5052 Oil Age hrs Client Info 2951 1331 3126 Oil Changed Client Info 2951 1331 3126 Sample Status NorRMAL ABNORMAL NORMAL NORMAL <td>Sample Number</td> <td></td> <td>Client Info</td> <td></td> <th>KC86494</th> <td>KC86336</td> <td>KC72897</td>	Sample Number		Client Info		KC86494	KC86336	KC72897
Machine Age hrs Client Info 8003 6376 5052 Oil Age hrs Client Info 2951 1331 3126 Oil Okanged Client Info Changed NortChangd Changed Sample Status Image Image NortChangd NortChangd NortChangd WEAR METALS method Imit/base current History1 History2 Iron ppm ASTM 05185m >50 1 <1	Sample Date		Client Info		01 Nov 2021	26 Apr 2021	14 Oct 2020
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Oil Changed Sample Status Client Info Changed NORMAL Not Changed ABNORMAL Changed NORMAL Changed ABNORMAL Changed NORMAL WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185m >50 1 <1 <1 <1 Ohromium ppm ASTM D5185m >50 1 <1 <1 <1 Nickel ppm ASTM D5185m >33 0 0 0 Aluminum ppm ASTM D5185m >10 <1 1 <1 Lead ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 Antimony ppm ASTM D5185m 0 0 11 12 <t< td=""><td>0</td><td>hrs</td><td>Client Info</td><td></td><th>2951</th><td>1331</td><td>3126</td></t<>	0	hrs	Client Info		2951	1331	3126
Sample Status NORMAL ABNORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 1 <1	-		Client Info		Changed	Not Changd	Changed
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 1 <1	-				-		
Iron ppm ASTM D5185m >50 1 <1			method	limit/base	current	history1	history2
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Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 0 <1					-		
Silver ppm ASTM D5185m >2 0 <1 <1 Aluminum ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >10 0 <1					-		
Aluminum ppm ASTM D5185m >10 <1 1 <1 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >50 11 1 5 Tin ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 <1					-		
Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >50 11 1 5 Tin ppm ASTM D5185m >10 0 <1					-		
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ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m <1	Vanadium	ppm	ASTM D5185m		-	0	
Boron ppm ASTM D5185m <1 11 12 Barium ppm ASTM D5185m 90 0 58 0 Molybdenum ppm ASTM D5185m 0 <1	Cadmium	ppm	ASTM D5185m		0	<1	0
Barium ppm ASTM D5185m 90 0 58 0 Molybdenum ppm ASTM D5185m 0 <1 0 Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 90 0 67 <1 Calcium ppm ASTM D5185m 2 0 <1 0 Calcium ppm ASTM D5185m 2 0 <1 4 2 Calcium ppm ASTM D5185m <1 4 4 4 Zinc ppm ASTM D5185m <25 <1 <1 3 Sodium ppm ASTM D5185m >20 0 <1 0 Water % ASTM D5185m >20 0 <1 0 Water % ASTM D6304 >0.05 0.008 0.025 0.008 opm Water ppm ASTM D7647 1313 1018	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 <1 0 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m		<1	11	12
Marganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 90 0 67 <1	Barium	ppm	ASTM D5185m	90	0	58	0
Magnesium ppm ASTM D5185m 90 0 67 <1 Calcium ppm ASTM D5185m 2 0 <1	Molybdenum	ppm	ASTM D5185m		0	<1	0
Calcium ppm ASTM D5185m 2 0 <1 0 Phosphorus ppm ASTM D5185m <1	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m <1 4 2 Zinc ppm ASTM D5185m 36 4 46 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 <1 3 Sodium ppm ASTM D5185m >20 0 <1 0 Vater % ASTM D5185m >20 0 <1 0 Water % ASTM D6304 >0.05 0.008 0.025 0.008 ppm Water ppm ASTM D6304 >500 87.1 253.8 80.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >20 5 0 Particles >21µm ASTM D7647 >3 0 0	Magnesium	ppm	ASTM D5185m	90	0	67	<1
Zinc ppm ASTM D5185m 36 4 46 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Calcium	ppm	ASTM D5185m	2	0	<1	0
Zinc ppm ASTM D5185m 36 4 46 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Phosphorus	ppm	ASTM D5185m		<1	4	2
Silicon ppm ASTM D5185m >25 <1 <1 3 Sodium ppm ASTM D5185m 0 3 1 Potassium ppm ASTM D5185m >20 0 <1	Zinc	ppm	ASTM D5185m		36	4	46
Sodium ppm ASTM D5185m 0 3 1 Potassium ppm ASTM D5185m >20 0 <1 0 Water % ASTM D6304 >0.05 0.008 0.025 0.008 ppm Water ppm ASTM D6304 >500 87.1 253.8 80.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1313 1018 Particles >6µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >80 14 3 Particles >21µm ASTM D7647 >20 5 0 Particles >38µm ASTM D7647 >3 0 0 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION<	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 <1 0 Water % ASTM D6304 >0.05 0.008 0.025 0.008 ppm Water ppm ASTM D6304 >500 87.1 253.8 80.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1313 1018 Particles >6µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >80 14 3 Particles >21µm ASTM D7647 >20 5 0 Particles >38µm ASTM D7647 >4 0 0 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25	<1	<1	3
Water % ASTM D6304 >0.05 0.008 0.025 0.008 ppm Water ppm ASTM D6304 >500 87.1 253.8 80.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1313 1018 Particles >6µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >80 14 3 Particles >21µm ASTM D7647 >20 5 0 Particles >38µm ASTM D7647 >4 0 0 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		0	3	1
ppm Water ppm ASTM D6304 >500 87.1 253.8 80.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1313 1018 Particles >6µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >80 14 3 Particles >14µm ASTM D7647 >20 5 0 Particles >21µm ASTM D7647 >4 0 0 Particles >38µm ASTM D7647 >3 0 0 Particles >71µm ASTM D7647 3 0 0 Oil Cleanliness ISO 4406 (c) /17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	0	<1	0
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 1313 1018 Particles >6μm ASTM D7647 >1300 279 178 Particles >14μm ASTM D7647 >80 14 3 Particles >21μm ASTM D7647 >20 5 0 Particles >21μm ASTM D7647 >4 0 0 Particles >38μm ASTM D7647 >3 0 0 Particles >71μm ASTM D7647 >3 0 15/9 FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.05	0.008	0.025	0.008
Particles >4µm ASTM D7647 1313 1018 Particles >6µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >80 14 3 Particles >14µm ASTM D7647 >20 5 0 Particles >21µm ASTM D7647 >20 5 0 Particles >38µm ASTM D7647 >4 0 0 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	87.1	253.8	80.7
Particles >6µm ASTM D7647 >1300 279 178 Particles >14µm ASTM D7647 >80 14 3 Particles >21µm ASTM D7647 >20 5 0 Particles >38µm ASTM D7647 >4 0 0 Particles >38µm ASTM D7647 >3 0 0 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >80 14 3 Particles >21μm ASTM D7647 >20 5 0 Particles >38μm ASTM D7647 >4 0 0 Particles >38μm ASTM D7647 >4 0 0 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647		1313		1018
Particles >14µm ASTM D7647 >80 14 3 Particles >21µm ASTM D7647 >20 5 0 Particles >38µm ASTM D7647 >4 0 0 Particles >38µm ASTM D7647 >4 0 0 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2			ASTM D7647	>1300	279		178
Particles >21μm ASTM D7647 >20 5 0 Particles >38μm ASTM D7647 >4 0 0 Particles >38μm ASTM D7647 >4 0 0 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	-		ASTM D7647	>80			3
Particles >38μm ASTM D7647 >4 0 0 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2							
Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2	•						
Oil Cleanliness ISO 4406 (c) >/17/13 15/11 15/9 FLUID DEGRADATION method limit/base current history1 history2							
FLUID DEGRADATION method limit/base current history1 history2							
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ACIG NUTLIDET (AIN) HIGROTIY ASTIVI DOUAS U.4 U.404 U.349 U.374							
	HCIU INUMBER (AIN)	iliy KUH/g	ASTIVI DOU45	0.4	U.464	0.349	0.374



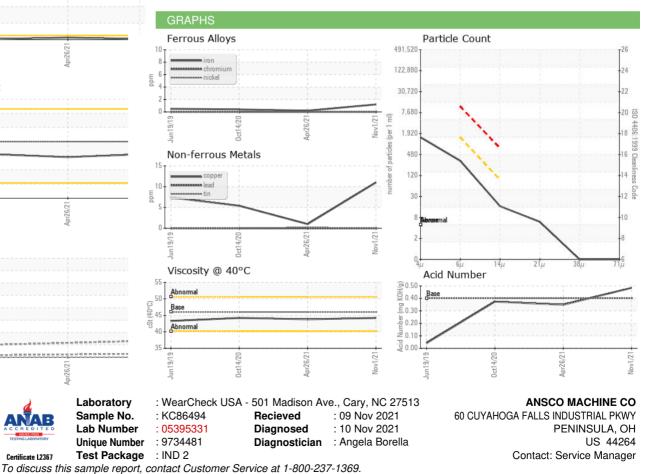
OIL ANALYSIS REPORT







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	LIGHT	🔺 MODER	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	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES .	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.2	43.8	44.2
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color						
Bottom						



* - 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/Location: Service Manager - ANSPEN

T:

F: