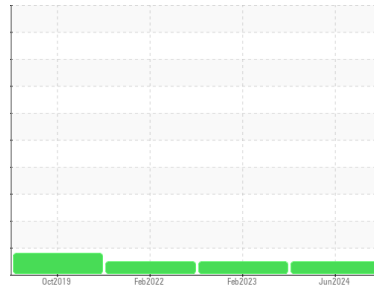




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
B200
 Component
Outboard Blower
 Fluid
KAESER OMEGA SB-220 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Analytical Ferrography: Results are normal, with only typical amounts of ferrous rubbing wear and contamination present.

Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

Contaminants

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Oil Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0954916	WC0779538	WC0599639
Sample Date	Client Info			21 Jun 2024	01 Feb 2023	01 Feb 2022
Machine Age	hrs	Client Info		50600	41690	36847
Oil Age	hrs	Client Info		8905	4848	6972
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		20	9	21
Iron	ppm	ASTM D5185m	>20	0	<1	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	1
Aluminum	ppm	ASTM D5185m	>20	<1	2	1
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	0	<1	<1
Tin	ppm	ASTM D5185m	>20	0	0	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

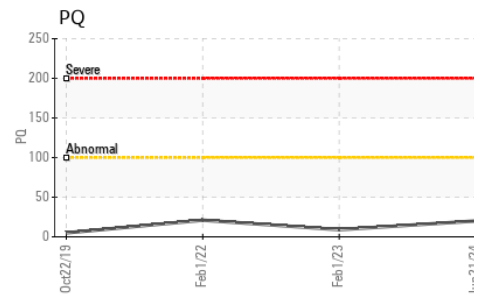
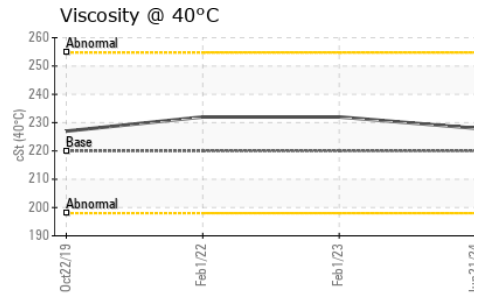
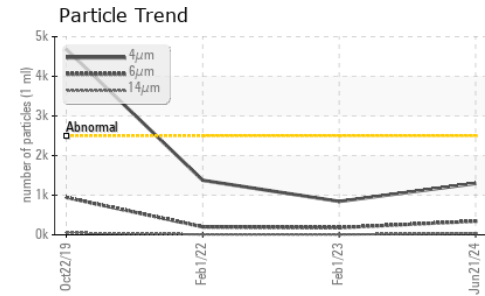
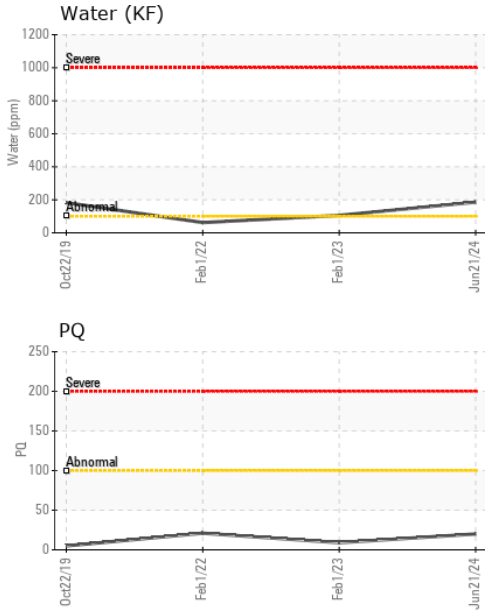
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m	90	<1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	90	90	85	94
Calcium	ppm	ASTM D5185m	2	5	1	0
Phosphorus	ppm	ASTM D5185m		2	4	4
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		22995	21888	17947

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	<1	<1
Sodium	ppm	ASTM D5185m		2	<1	1
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water	%	ASTM D6304		0.018	0.010	0.006
ppm Water	ppm	ASTM D6304		186	105.6	61.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	1297	843	1375
Particles >6µm		ASTM D7647	>640	343	180	200
Particles >14µm		ASTM D7647	>80	34	8	9
Particles >21µm		ASTM D7647	>20	10	2	1
Particles >38µm		ASTM D7647	>4	1	1	0
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	17/16/12	17/15/10	18/15/10



OIL ANALYSIS REPORT

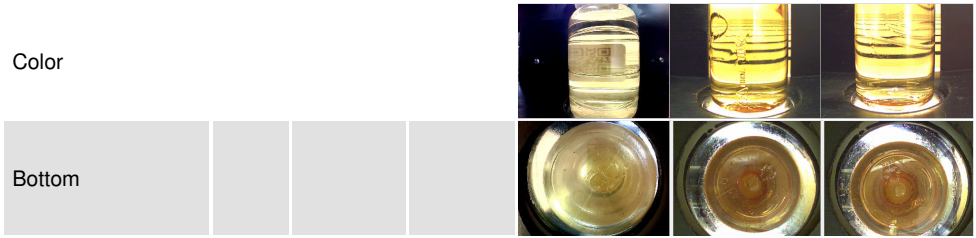


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.39	0.43	0.27

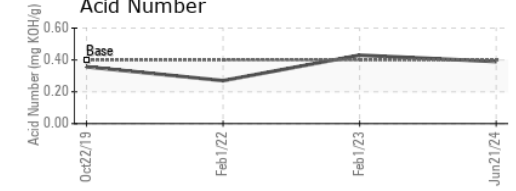
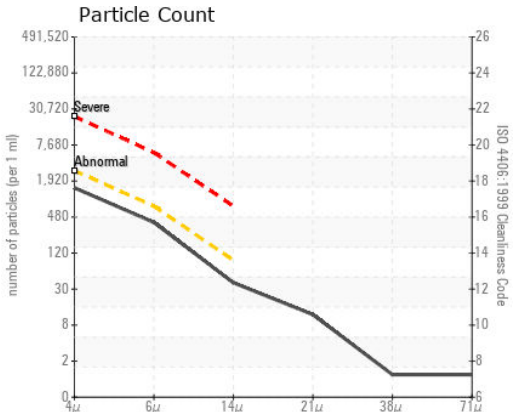
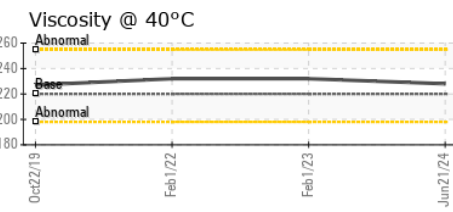
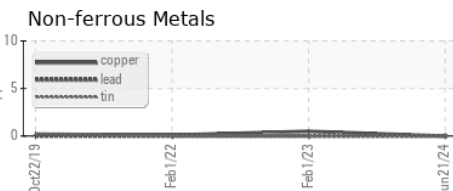
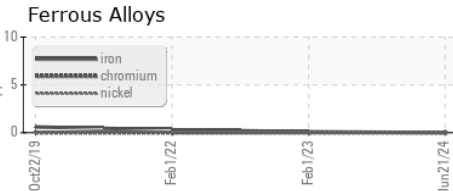
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	228	232	232

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0954916 **Received** : 25 Jun 2024
Lab Number : **06220401** **Tested** : 28 Jun 2024
Unique Number : 11098598 **Diagnosed** : 28 Jun 2024 - Aaron Black
Test Package : IND 3 (Additional Tests: KF, PftCount)

ENVIRONMENTAL & INFRASTRUCTURE SOLUTIONS
 511 CONGRESS STREET
 PORTLAND, ME
 US 04101
 Contact: KAITLYN CHICK

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

T: (207)828-3459

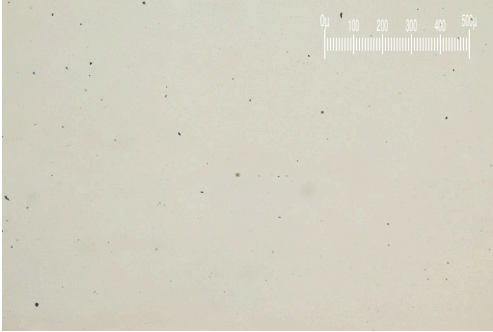
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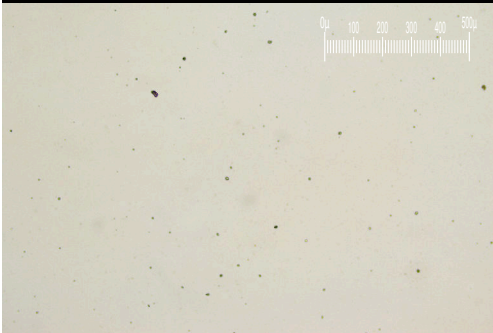
FERROGRAPHY REPORT

Machine Id
B200
 Component
Outboard Blower
 Fluid
KAESER OMEGA SB-220 (--- GAL)

Magn: 100x Illum: RW



Magn: 100x Illum: RW



Magn: 100x Illum: RW



FERROGRAPHY	method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10 *ASTM D7684		1	1	
Ferrous Sliding	Scale 0-10 *ASTM D7684			1	
Ferrous Cutting	Scale 0-10 *ASTM D7684				
Ferrous Rolling	Scale 0-10 *ASTM D7684				
Ferrous Break-in	Scale 0-10 *ASTM D7684				
Ferrous Spheres	Scale 0-10 *ASTM D7684				
Ferrous Black Oxides	Scale 0-10 *ASTM D7684				
Ferrous Red Oxides	Scale 0-10 *ASTM D7684				
Ferrous Corrosive	Scale 0-10 *ASTM D7684				
Ferrous Other	Scale 0-10 *ASTM D7684				
Nonferrous Rubbing	Scale 0-10 *ASTM D7684				
Nonferrous Sliding	Scale 0-10 *ASTM D7684				
Nonferrous Cutting	Scale 0-10 *ASTM D7684				
Nonferrous Rolling	Scale 0-10 *ASTM D7684				
Nonferrous Other	Scale 0-10 *ASTM D7684				
Carbonaceous Material	Scale 0-10 *ASTM D7684				
Lubricant Degradation	Scale 0-10 *ASTM D7684				
Sand/Dirt	Scale 0-10 *ASTM D7684				
Fibres	Scale 0-10 *ASTM D7684				
Spheres	Scale 0-10 *ASTM D7684				
Other	Scale 0-10 *ASTM D7684		1	1	1

WEAR

All component wear rates are normal.
 The ferrography results are normal indicating no abnormal wear in the system.

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