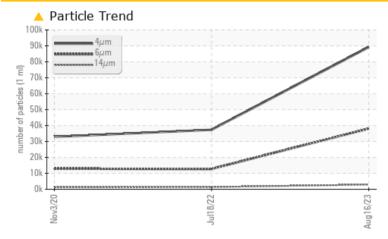




KAESER 5931440

Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

THOBELIN/(THO TEOT	LOOLIO				
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	A 38087	1 2715	12916
Particles >14µm	ASTM D7647	>80	🔺 2917	1 380	1201
Particles >21µm	ASTM D7647	>20	6 536	A 327	A 359
Particles >38µm	ASTM D7647	>4	人 19	A 36	<u> </u>
Oil Cleanliness	ISO 4406 (c)	>/17/13	<u> </u>	🔺 22/21/18	<u> </u>

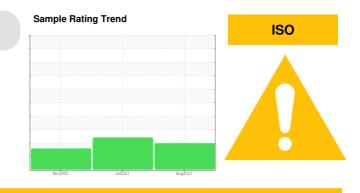
Customer Id: PENGARGA Sample No.: KCPA002461 Lab Number: 05930394 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Fluid			?	Oil and filter change at the time of sampling has been noted.		
Change Filter			?	Oil and filter change at the time of sampling has been noted.		

HISTORICAL DIAGNOSIS



18 Jul 2022 Diag: Don Baldridge

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



03 Nov 2020 Diag: Jonathan Hester



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend ISO

Machine Id **KAESER 5931440** Component

Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

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

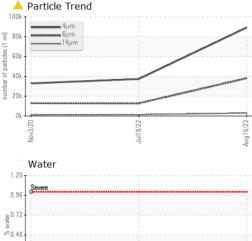
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA002461	KCP51368	KCP31752
Sample Date		Client Info		16 Aug 2023	18 Jul 2022	03 Nov 2020
Machine Age	hrs	Client Info		24956	20215	12347
Oil Age	hrs	Client Info		4549	5235	4768
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	<1	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	31	20	25
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	1-1-	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	9
Barium	ppm	ASTM D5185m	90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm	ASTM D5185m	100	0	0	0
Magnesium	ppm	ASTM D5185m	100	1	0	1
Calcium	ppm	ASTM D5185m		0	0	3
Phosphorus	ppm	ASTM D5185m	0	0	9	5
Zinc	ppm	ASTM D5185m	0	26	0	0
Sulfur	ppm	ASTM D5185m	23500	22900	17030	14529
CONTAMINANTS		method	limit/base	current	history1	history2
0.11						
Silicon	ppm	ASTM D5185m	>25	1	<1	0
Silicon Sodium	ppm ppm	ASTM D5185m		2	<1 <1	0 <1
	ppm ppm	ASTM D5185m ASTM D5185m	>20	2 0	<1 0	<1 0
Sodium	ppm	ASTM D5185m	>20	2	<1	<1
Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>20 >0.05	2 0	<1 0	<1 0
Sodium Potassium Water	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304	>20 >0.05	2 0 0.008	<1 0 0.012	<1 0 0.007
Sodium Potassium Water ppm Water	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>20 >0.05 >500	2 0 0.008 88.2	<1 0 0.012 121.7	<1 0 0.007 72.2
Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	>20 >0.05 >500 limit/base	2 0 0.008 88.2 current	<1 0 0.012 121.7 history1	<1 0 0.007 72.2 history2
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	>20 >0.05 >500 limit/base	2 0 0.008 88.2 current 89195	<1 0 0.012 121.7 history1 37340	<1 0 0.007 72.2 history2 32920
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	>20 >0.05 >500 limit/base >1300 >80	2 0 0.008 88.2 <u>current</u> 89195 ▲ 38087	<1 0 0.012 121.7 history1 37340 12715	<1 0 0.007 72.2 history2 32920 12916
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.05 >500 limit/base >1300 >80	2 0 0.008 88.2 <u>current</u> 89195 ▲ 38087 ▲ 2917	<1 0 0.012 121.7 history1 37340 12715 1380	<1 0 0.007 72.2 history2 32920 12916 1201
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.05 >500 limit/base >1300 >80 >20 >4	2 0 0.008 88.2 <u>current</u> 89195 ▲ 38087 ▲ 2917 ▲ 536	<1 0 0.012 121.7 history1 37340 12715 1380 327	<1 0 0.007 72.2 history2 32920 12916 1201 259
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.05 >500 limit/base >1300 >80 >20 >4	2 0 0.008 88.2 current 89195 ▲ 38087 ▲ 2917 ▲ 536 ▲ 19	<1 0 0.012 121.7 history1 37340 ▲ 12715 ▲ 1380 ▲ 327 ▲ 36	<1 0 0.007 72.2 history2 32920 12916 1201 359 14
Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm % ppm ESS	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	2 0 0.008 88.2	<1 0 0.012 121.7 history1 37340 12715 1380 327 36 36 4	<1 0 0.007 72.2 history2 32920 12916 1201 359 14 0

Report Id: PENGARGA [WUSCAR] 05930394 (Generated: 08/23/2023 15:11:05) Rev: 1

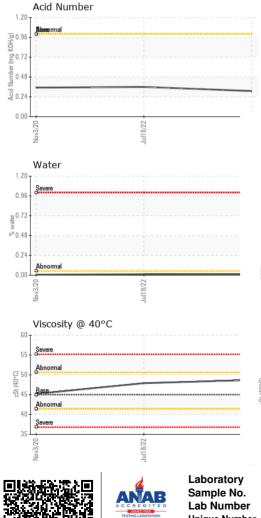
Contact/Location: Service Manager - PENGARGA



OIL ANALYSIS REPORT

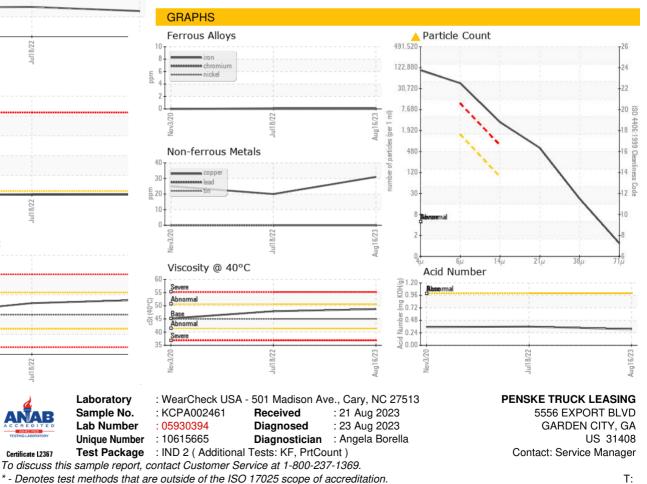






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	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	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	48.7	47.9	45.2
SAMPLE IMAGES	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)

Certificate L2367