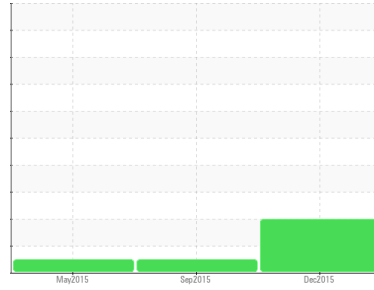




# PROBLEM SUMMARY

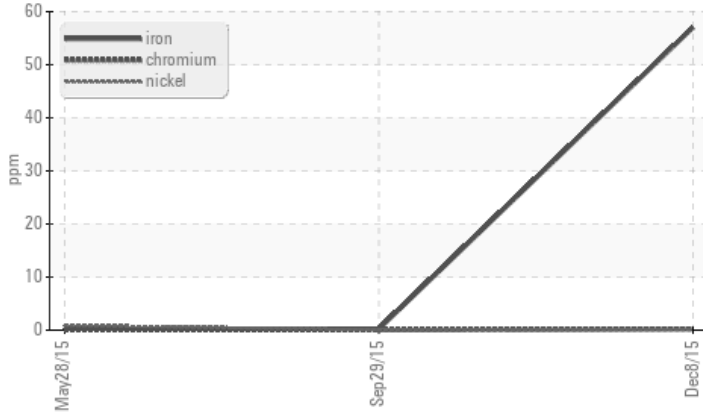
Area  
**[57672778]**  
 Machine Id  
**KAESER C-1R (S/N 1022)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

Sample Rating Trend

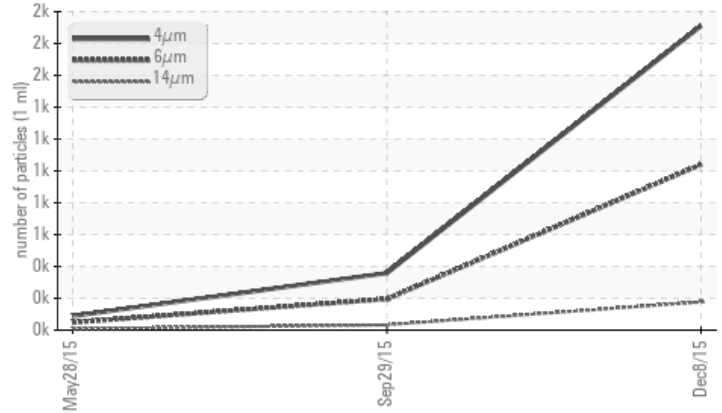


## COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	▲ 57	<1	<1
Particles >14µm		ASTM D7647	>80	▲ 177	33	8
Particles >21µm		ASTM D7647	>20	▲ 59	11	2
Particles >38µm		ASTM D7647	>4	▲ 9	1	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 18/17/15	16/15/12	14/13/10

Customer Id: WESLONWC  
 Sample No.: WCI2281633  
 Lab Number: 03879236  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	MISSED	Nov 29 2017	?	We recommend you service the filters on this component.

## HISTORICAL DIAGNOSIS

### 29 Sep 2015 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system is acceptable. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 28 May 2015 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system is acceptable. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

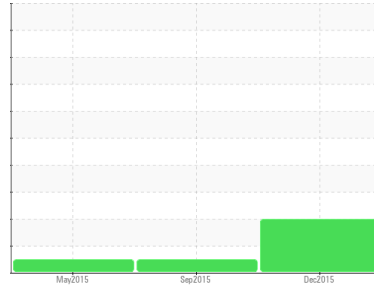
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**[57672778]**  
 Machine Id  
**KAESER C-1R (S/N 1022)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

The iron level is abnormal. All other 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 INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	<b>WCI2281633</b>	WCI2214382	WCI2258496
Sample Date	Client Info	<b>08 Dec 2015</b>	29 Sep 2015	28 May 2015
Machine Age	hrs	<b>14937</b>	13629	10821
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m >50	<b>▲ 57</b>	<1	<1
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	2
Copper	ppm	ASTM D5185m >50	<b>4</b>	3	<1
Tin	ppm	ASTM D5185m >10	<b>3</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>20</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 90	<b>21</b>	4	0
Calcium	ppm	ASTM D5185m 2	<b>1</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>42</b>	0	3
Zinc	ppm	ASTM D5185m	<b>60</b>	169	2
Sulfur	ppm	ASTM D5185m	<b>17614</b>	17303	0

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >25	<b>3</b>	2	<1
Sodium	ppm	ASTM D5185m	<b>2</b>	3	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	0

## FLUID CLEANLINESS

method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	<b>1910</b>	358	89
Particles >6µm	ASTM D7647 >1300	<b>1040</b>	195	48
Particles >14µm	ASTM D7647 >80	<b>▲ 177</b>	33	8
Particles >21µm	ASTM D7647 >20	<b>▲ 59</b>	11	2
Particles >38µm	ASTM D7647 >4	<b>▲ 9</b>	1	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>▲ 18/17/15</b>	16/15/12	14/13/10

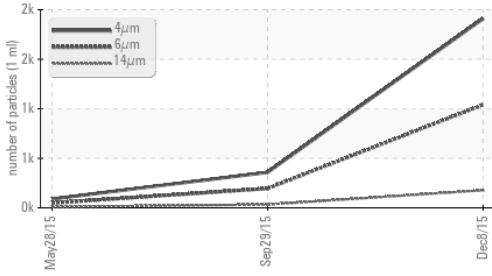
## FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.436</b>	0.405	0.538

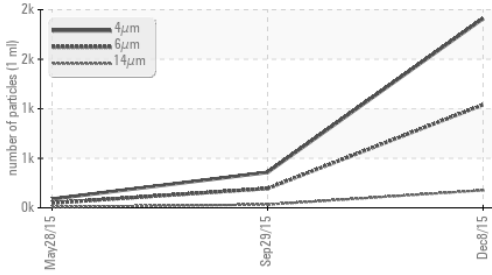


# OIL ANALYSIS REPORT

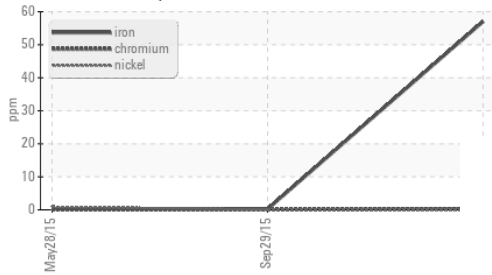
▲ Particle Trend



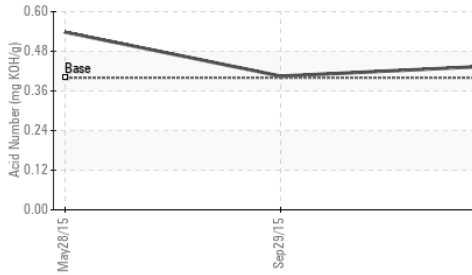
▲ Particle Trend



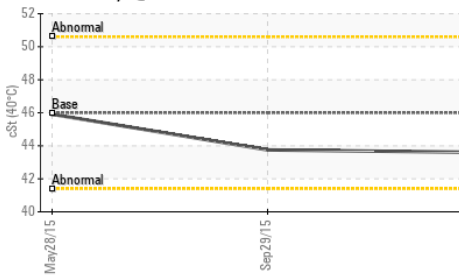
▲ Ferrous Alloys



Acid Number



Viscosity @ 40°C



VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

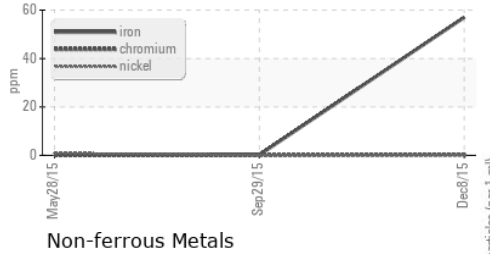
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445 46	43.6	43.75	45.91

SAMPLE IMAGES

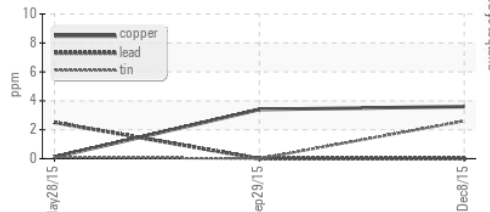
method	limit/base	current	history 1	history 2
Color			no image	no image
Bottom			no image	no image

GRAPHS

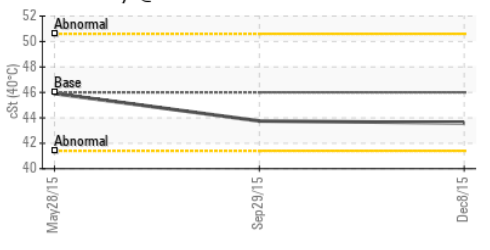
▲ Ferrous Alloys



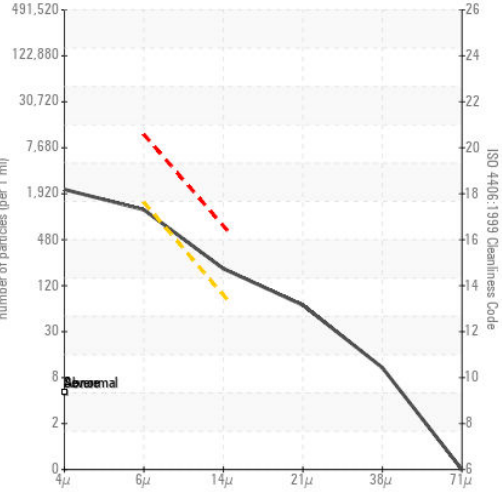
Non-ferrous Metals



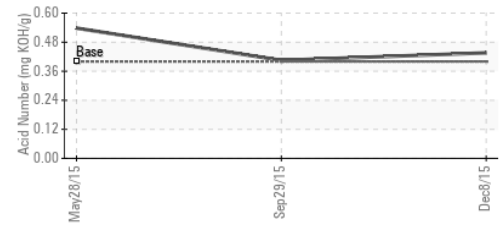
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC12281633 Received : 09 Dec 2015  
 Lab Number : 03879236 Diagnosed : 10 Dec 2015  
 Unique Number : 7229497 Diagnostician : Jonathan Hester  
 Test Package : IND 2 ( Additional Tests: PQ, PrtCount )

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)

**WESTLAKE CHEMICAL**  
 2290 CALLAHAN RD  
 LONGVIEW, TX  
 US 75607  
 Contact: ROB WALLIN  
 rwallin@westlake.com  
 T: (903)242-7576  
 F: (903)758-9521