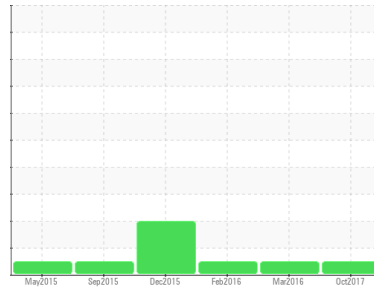




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**[9276391]**  
 Machine Id  
**KAESER C-1R (S/N 1022)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

### 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>WCI2317638</b>	WC03963555	WCI2286808
Sample Date	Client Info			<b>19 Oct 2017</b>	16 Mar 2016	25 Feb 2016
Machine Age	hrs	Client Info		<b>29355</b>	16335	15856
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	<1	2
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	2
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m	>50	<b>10</b>	5	5
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
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	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	7
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	90	<b>0</b>	2	32
Calcium	ppm	ASTM D5185m	2	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	46	42
Zinc	ppm	ASTM D5185m		<b>0</b>	72	6
Sulfur	ppm	ASTM D5185m		<b>4636</b>	19109	18002

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	7	<1
Sodium	ppm	ASTM D5185m		<b>0</b>	1	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	5

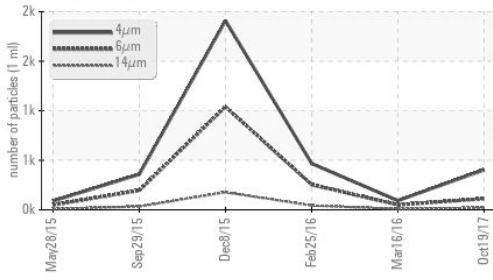
FLUID CLEANLINESS		method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647		<b>403</b>	93	467
Particles >6µm		ASTM D7647	>1300	<b>112</b>	50	254
Particles >14µm		ASTM D7647	>80	<b>21</b>	8	43
Particles >21µm		ASTM D7647	>20	<b>10</b>	2	14
Particles >38µm		ASTM D7647	>4	<b>4</b>	0	2
Particles >71µm		ASTM D7647	>3	<b>3</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>16/14/12</b>	14/13/10	16/15/13

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.378</b>	0.430	0.345

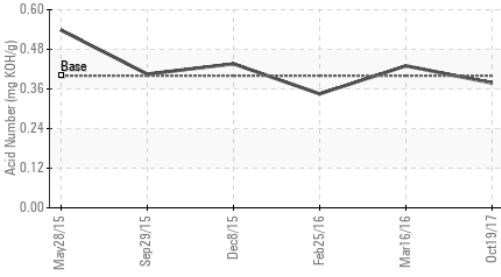


# OIL ANALYSIS REPORT

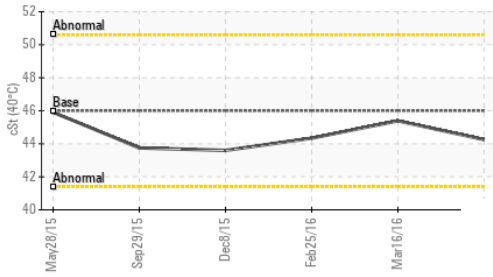
**Particle Trend**



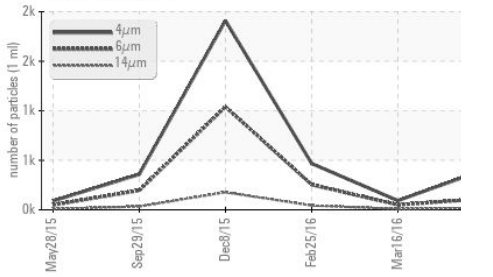
**Acid Number**



**Viscosity @ 40°C**



**Particle Trend**



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	VLITE
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

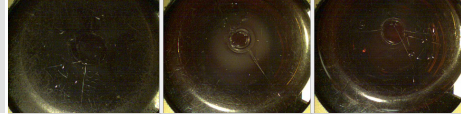
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445 46	44.25	45.39	44.34

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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**Color**

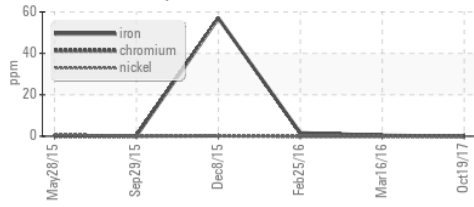


**Bottom**

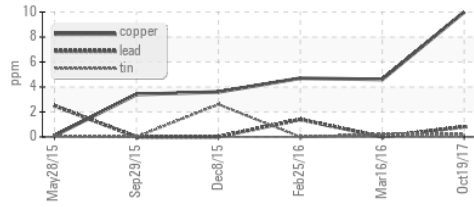


## GRAPHS

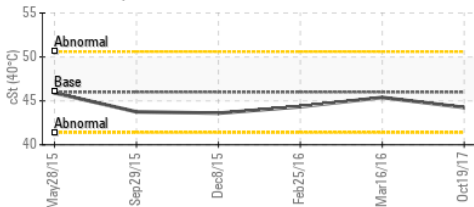
**Ferrous Alloys**



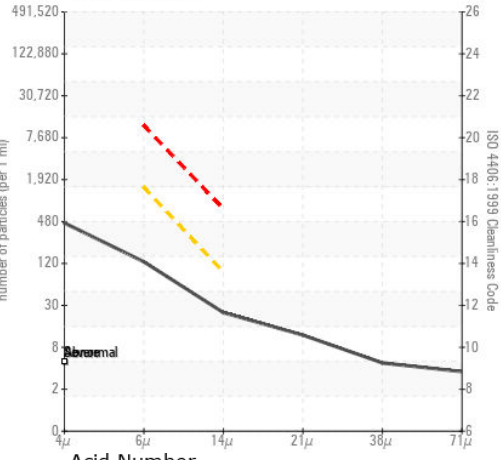
**Non-ferrous Metals**



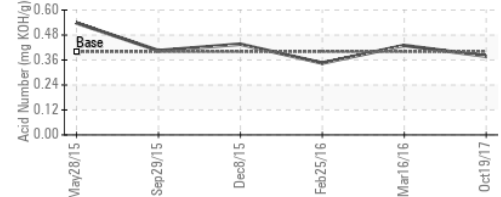
**Viscosity @ 40°C**



**Particle Count**



**Acid Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC12317638 **Received** : 27 Nov 2017  
**Lab Number** : 04355828 **Diagnosed** : 29 Nov 2017  
**Unique Number** : 8014453 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

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

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)