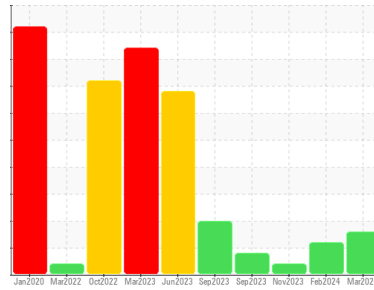




# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**GUAY SON [CONHER]**  
 Machine Id  
**BM SONORENSE II MAIN ENGINE**  
 Component  
**Bottom Transmission (Manual)**  
 Fluid  
**RALYO SAE 50 (40 LTR)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. ( Customer Sample Comment: Fluid: Raloy SAE 50 )

### Wear

The iron level has decreased, but is still abnormal. All other component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>KL0014183</b>	KL0014135	KL0013410
Sample Date	Client Info		<b>20 Mar 2024</b>	06 Feb 2024	14 Nov 2023
Machine Age	hrs	Client Info	<b>12146</b>	11664	10628
Oil Age	hrs	Client Info	<b>482</b>	1536	500
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>▲ 282</b>	▲ 417	192
Chromium	ppm	ASTM D5185m >5	<b>1</b>	2	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >7	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m >45	<b>1</b>	3	4
Copper	ppm	ASTM D5185m >225	<b>4</b>	10	6
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	1	<1
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	<b>4</b>	4	2
Magnesium	ppm	ASTM D5185m	<b>7</b>	6	8
Calcium	ppm	ASTM D5185m	<b>3273</b>	3215	3296
Phosphorus	ppm	ASTM D5185m	<b>990</b>	905	986
Zinc	ppm	ASTM D5185m	<b>816</b>	718	810
Sulfur	ppm	ASTM D5185m	<b>7679</b>	6132	6611

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >125	<b>8</b>	11	9
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	1

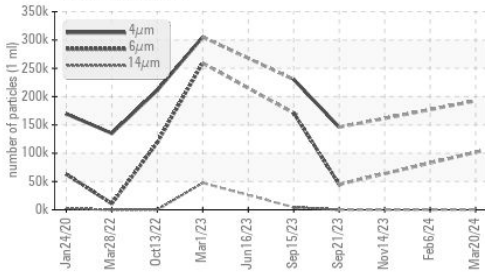
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>192500</b>	---	---
Particles >6µm	ASTM D7647	>2500	<b>▲ 101664</b>	---	---
Particles >14µm	ASTM D7647	>320	<b>78</b>	---	---
Particles >21µm	ASTM D7647	>80	<b>14</b>	---	---
Particles >38µm	ASTM D7647	>20	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>4	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/15	<b>▲ 24/13</b>	---	---

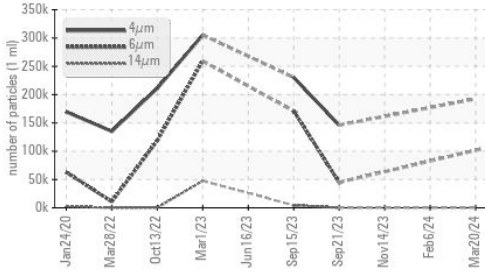
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.74</b>	0.65	0.73

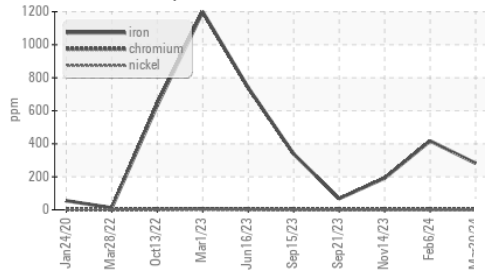
### ▲ Particle Trend



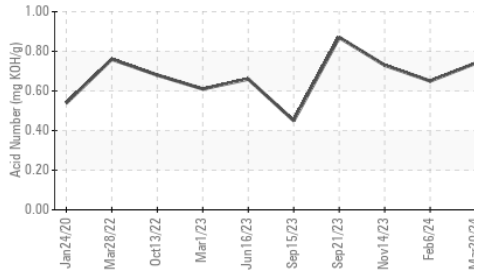
### ▲ Particle Trend



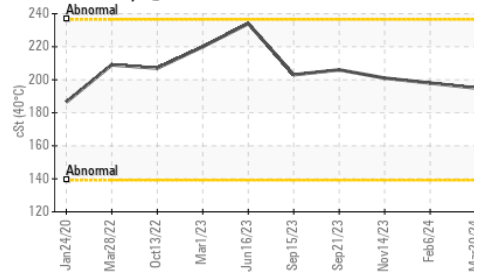
### ▲ Ferrous Alloys



### Acid Number



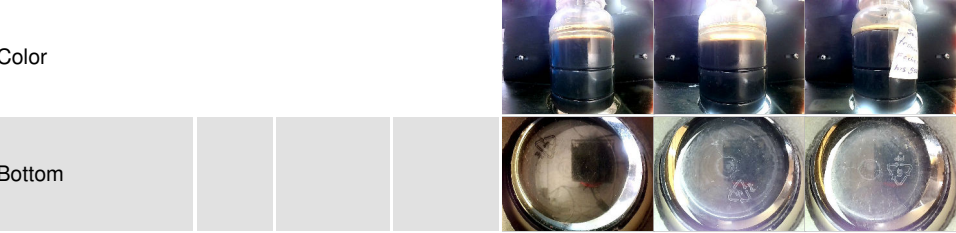
### Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
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	▲ MODER	▲ HEAVY
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

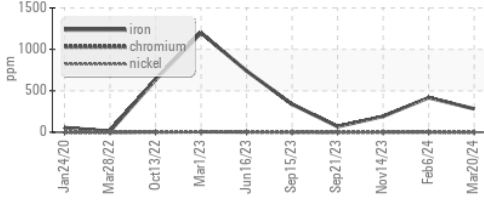
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	195	198	201

SAMPLE IMAGES	method	limit/base	current	history1	history2
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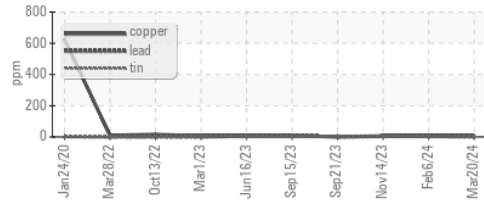


### GRAPHS

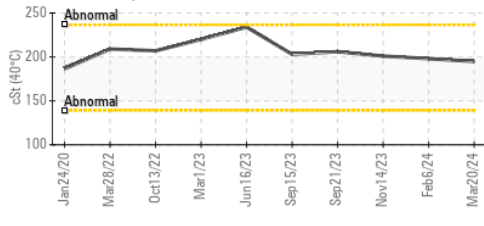
#### ▲ Ferrous Alloys



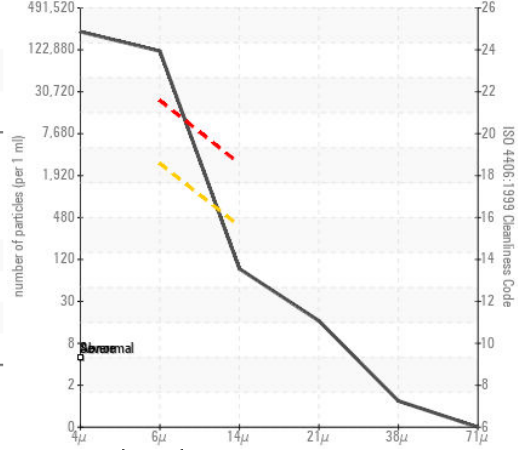
#### Non-ferrous Metals



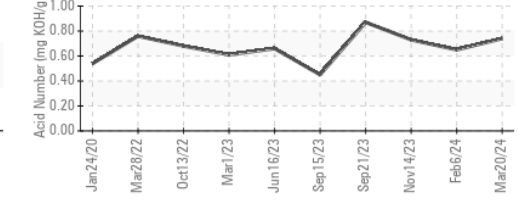
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0014183 **Received** : 18 Apr 2024  
**Lab Number** : 06153074 **Tested** : 19 Apr 2024  
**Unique Number** : 10983152 **Diagnosed** : 22 Apr 2024 - Angela Borella  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**CONOR**  
 JUAREZ 348  
 HERMOSILLO,  
 MX 83140  
 Contact: EDUARDO GARCIA  
 egarcia.comsa@gmail.com  
 T: (526)622-1581 x:81  
 F: x:

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)