



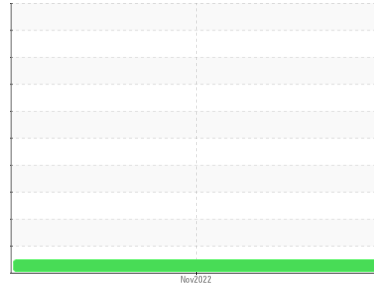
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[CONHER]**  
 Machine Id  
**Astillero - Grua TV 150 Motor**  
 Component  
**Diesel Engine**  
 Fluid  
**Xtra Rev 15W40 (22 LTR)**



## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

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

**Fluid Condition**  
 The BN result indicates that there is suitable alkalinity remaining in the oil. 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>KL0011245</b>	---	---
Sample Date	Client Info	<b>16 Nov 2022</b>	---	---
Machine Age	hrs Client Info	<b>9600</b>	---	---
Oil Age	hrs Client Info	<b>160</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history 1	history 2
Fuel	WC Method >5	<b>&lt;1.0</b>	---	---
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m >100	<b>28</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>2</b>	---	---
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	---	---
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >20	<b>5</b>	---	---
Lead	ppm ASTM D5185m >40	<b>3</b>	---	---
Copper	ppm ASTM D5185m >330	<b>62</b>	---	---
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m	<b>352</b>	---	---
Barium	ppm ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m	<b>110</b>	---	---
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm ASTM D5185m	<b>499</b>	---	---
Calcium	ppm ASTM D5185m	<b>1397</b>	---	---
Phosphorus	ppm ASTM D5185m	<b>832</b>	---	---
Zinc	ppm ASTM D5185m	<b>984</b>	---	---
Sulfur	ppm ASTM D5185m	<b>3784</b>	---	---

## CONTAMINANTS

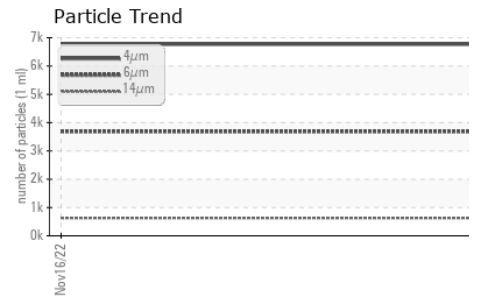
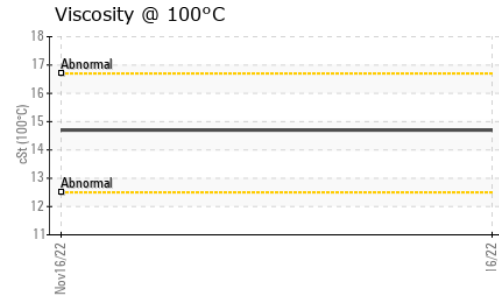
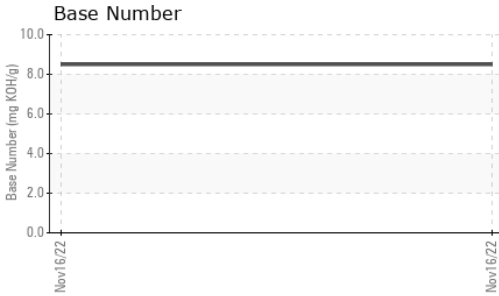
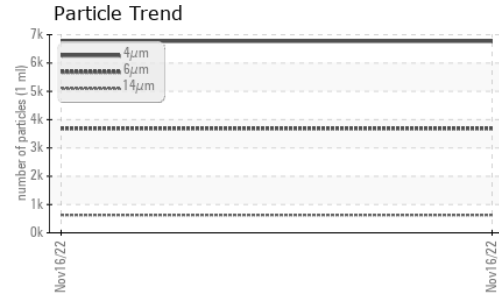
method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m >25	<b>18</b>	---	---
Sodium	ppm ASTM D5185m	<b>7</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>1</b>	---	---

## INFRA-RED

method	limit/base	current	history 1	history 2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>5.9</b>	---	---
Sulfation	Abs./1mm *ASTM D7415 >30	<b>21.2</b>	---	---



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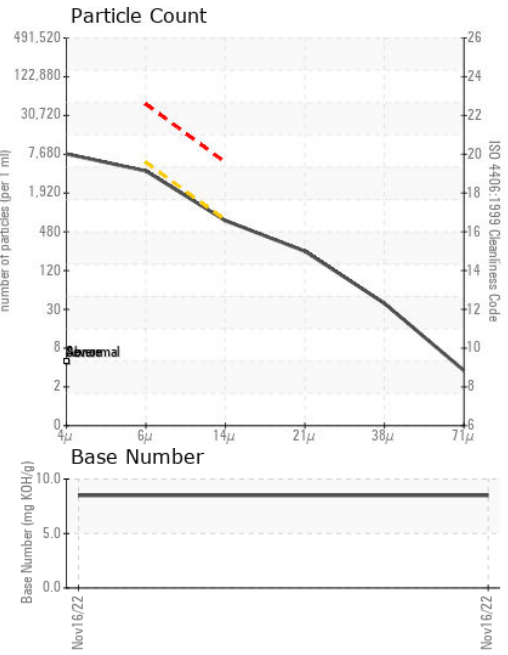
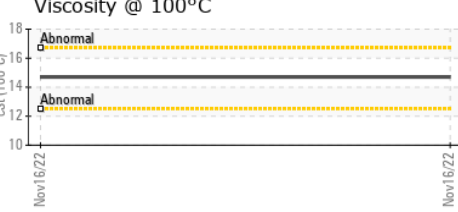
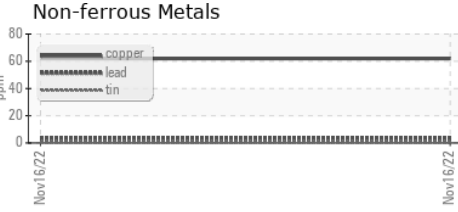
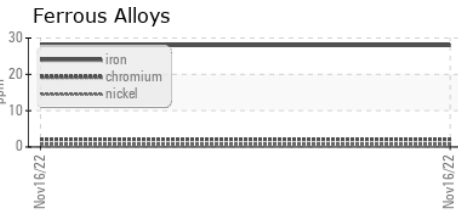
FLUID CLEANLINESS	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>6770</b>	---	---
Particles >6µm	ASTM D7647	>5000	<b>3688</b>	---	---
Particles >14µm	ASTM D7647	>640	<b>628</b>	---	---
Particles >21µm	ASTM D7647	>160	<b>211</b>	---	---
Particles >38µm	ASTM D7647	>40	<b>33</b>	---	---
Particles >71µm	ASTM D7647	>10	<b>3</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/16	<b>19/16</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm *ASTM D7414	>25	<b>15.0</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896		<b>8.50</b>	---	---

VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar *Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar *Visual	NONE	<b>NONE</b>	---	---
Precipitate	scalar *Visual	NONE	<b>NONE</b>	---	---
Silt	scalar *Visual	NONE	<b>NONE</b>	---	---
Debris	scalar *Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar *Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar *Visual	NORML	<b>NORML</b>	---	---
Odor	scalar *Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar *Visual	>0.2	<b>NEG</b>	---	---
Free Water	scalar *Visual		<b>NEG</b>	---	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt ASTM D445		<b>14.7</b>	---	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0011245 **Received** : 06 Dec 2022  
**Lab Number** : **05710563** **Diagnosed** : 09 Dec 2022  
**Unique Number** : 10245138 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**IBACO**  
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 MX  
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 T:  
 F:

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)