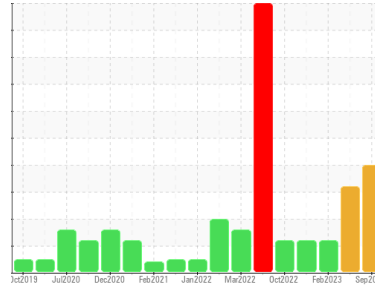




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
IBACO [CONHER]
Machine Id
IBACO BM COZAR IX
Component
Main Engine
Fluid
XTRA REV 15W40 (160 LTR)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KL0012872	KL0011405	KL0010228
Sample Date	Client Info		22 Sep 2023	30 Mar 2023	17 Feb 2023
Machine Age	hrs	Client Info	10606	10604	0
Oil Age	hrs	Client Info	305	303	0
Oil Changed	Client Info		Not Chngd	Not Chngd	N/A
Sample Status			SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >75	4	7	21
Chromium	ppm	ASTM D5185m >8	0	0	<1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m >3	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >15	3	<1	0
Lead	ppm	ASTM D5185m >18	0	<1	2
Copper	ppm	ASTM D5185m >80	1	4	9
Tin	ppm	ASTM D5185m >14	<1	0	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	2	9
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	5	9	19
Calcium	ppm	ASTM D5185m	2108	3164	3241
Phosphorus	ppm	ASTM D5185m	895	1215	1144
Zinc	ppm	ASTM D5185m	1063	1529	1322
Sulfur	ppm	ASTM D5185m	3209	4933	4839

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	7	5	6
Sodium	ppm	ASTM D5185m >75	0	0	5
Potassium	ppm	ASTM D5185m >20	3	4	12
Fuel	%	ASTM D3524 >4.0	20.2	7.1	6.3

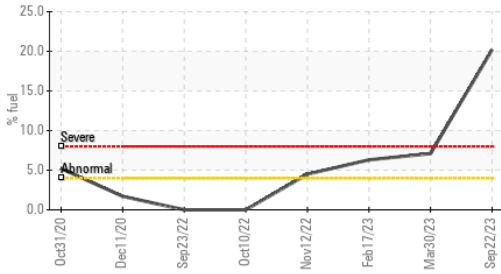
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0.2	0.5
Nitration	Abs/cm	*ASTM D7624 >20	4.6	6.9	10.3
Sulfation	Abs./1mm	*ASTM D7415 >30	11.9	15.1	20.0

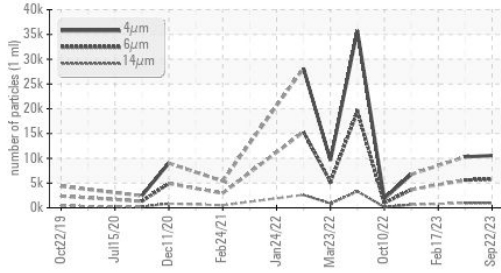


OIL ANALYSIS REPORT

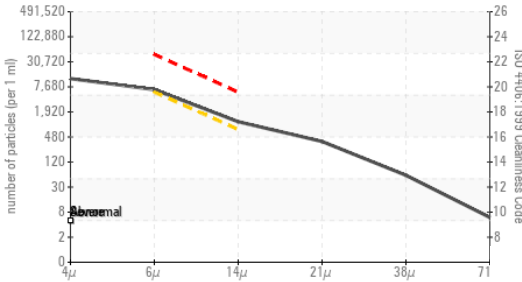
Fuel Dilution



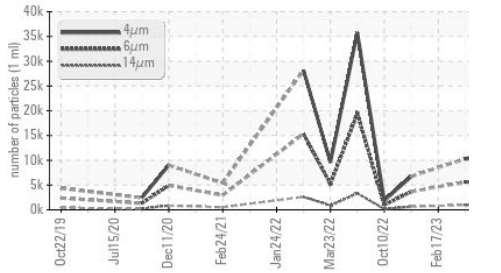
Particle Trend



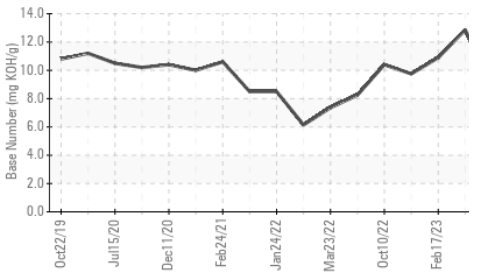
Particle Count



Particle Trend



Base Number



FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		10544	10283	---
Particles >6µm	ASTM D7647	>5000	5744	5602	---
Particles >14µm	ASTM D7647	>640	978	953	---
Particles >21µm	ASTM D7647	>160	329	321	---
Particles >38µm	ASTM D7647	>40	51	50	---
Particles >71µm	ASTM D7647	>10	5	5	---
Oil Cleanliness	ISO 4406 (c)	>19/16	20/17	20/17	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	*ASTM D7414 >25	5.2	8.1	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.09	12.85	10.9

VISUAL

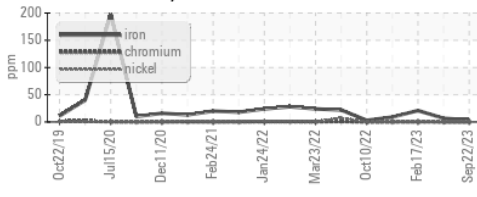
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	NORML	NORML
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >0.1	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES

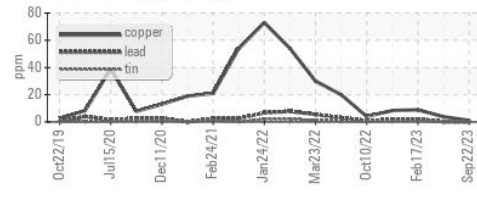
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	8.2	10.8	11.4

GRAPHS

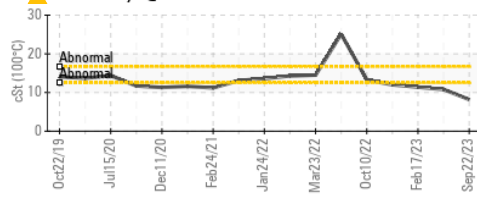
Ferrous Alloys



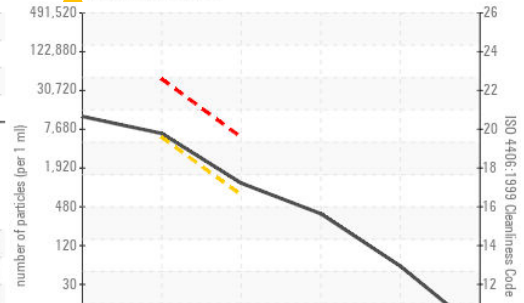
Non-ferrous Metals



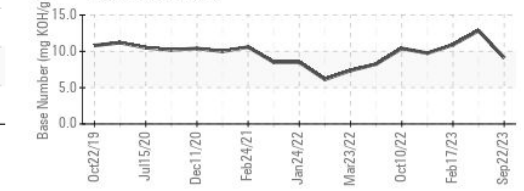
Viscosity @ 100°C



Particle Count



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012872 **Received** : 29 Sep 2023
Lab Number : 05964778 **Diagnosed** : 03 Oct 2023
Unique Number : 10671329 **Diagnostician** : Angela Borella
Test Package : MOB 2 (Additional Tests: PercentFuel, 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)

CONOR
 JUAREZ 348
 HERMOSILLO,
 MX 83140

Contact: EDUARDO GARCIA
 egarcia.comsa@gmail.com

T: (526)622-1581 x:81

F: x: