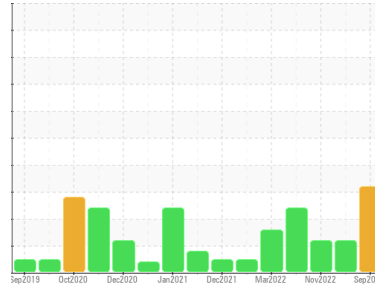




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
GUAY SON [CONHER]
Machine Id
IBACO BM CACHOS
Component
Bottom Diesel Engine
Fluid
XTRA REV 15W40 (160 LTR)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil. There is a moderate amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	KL0012841	KL0010230	KL0011263
Sample Date	Client Info	20 Sep 2023	17 Feb 2023	22 Nov 2022
Machine Age	hrs	11473	11463	10500
Oil Age	hrs	10	484	1127
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		ABNORMAL	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 >100	15	13	25
Chromium	ppm	ASTM D5185m >20	0	<1	<1
Nickel	ppm	ASTM D5185m >4	0	<1	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	4	<1	3
Lead	ppm	ASTM D5185m >40	<1	<1	2
Copper	ppm	ASTM D5185m >330	4	4	10
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	5
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	1	3
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	10	11	24
Calcium	ppm	ASTM D5185m	2799	2943	3198
Phosphorus	ppm	ASTM D5185m	1202	1165	1251
Zinc	ppm	ASTM D5185m	1431	1369	1413
Sulfur	ppm	ASTM D5185m	4200	4637	5232

CONTAMINANTS

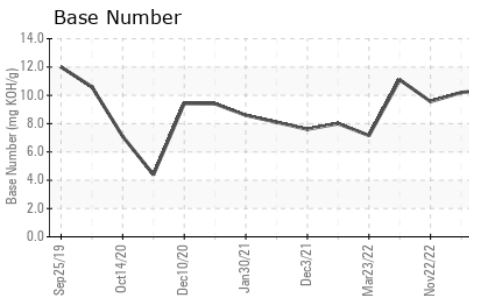
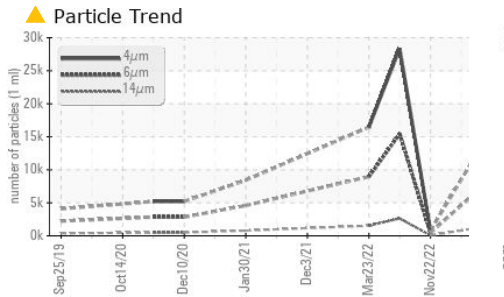
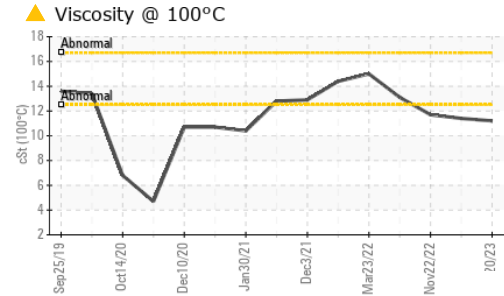
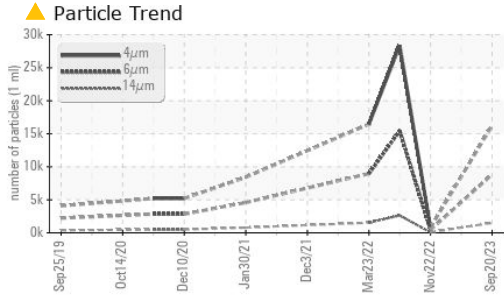
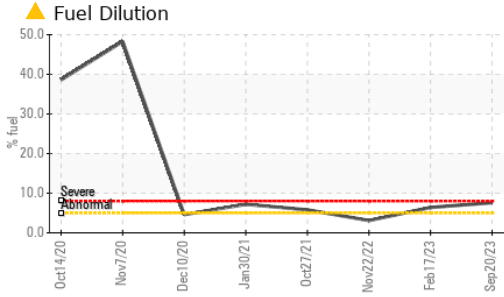
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	16	12	6
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	1	1	1
Fuel	%	ASTM D3524 >5	▲ 7.6	▲ 6.4	▲ 3.1

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.2	0.3	0.4
Nitration	Abs/cm	*ASTM D7624 >20	6.5	6.6	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	14.7	15.0	18.3



OIL ANALYSIS REPORT



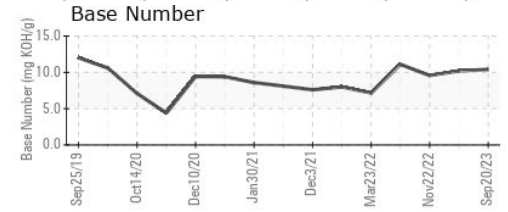
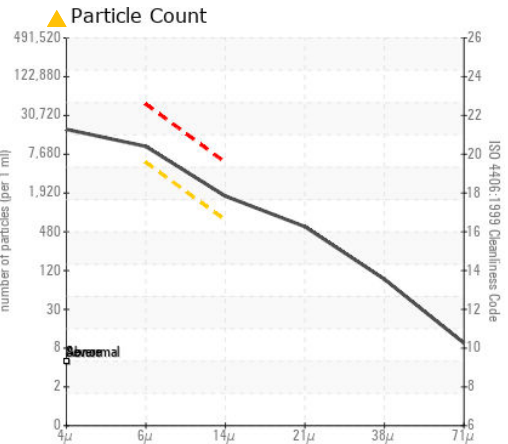
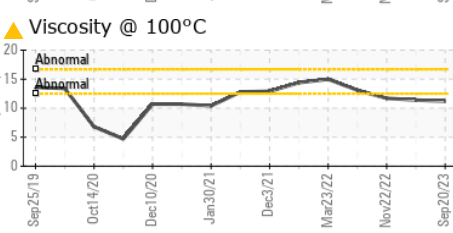
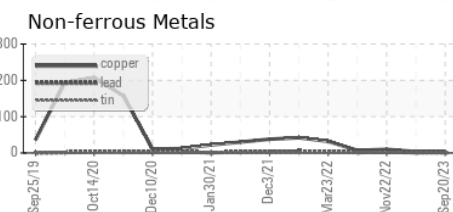
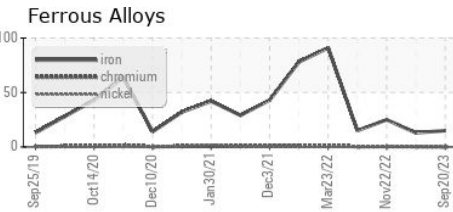
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		16225	---	803
Particles >6µm	ASTM D7647	>5000	▲ 8839	---	437
Particles >14µm	ASTM D7647	>640	▲ 1504	---	74
Particles >21µm	ASTM D7647	>160	▲ 507	---	25
Particles >38µm	ASTM D7647	>40	▲ 78	---	4
Particles >71µm	ASTM D7647	>10	8	---	0
Oil Cleanliness	ISO 4406 (c)	>19/16	▲ 20/18	---	16/13

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	7.4	7.6	10.1
Base Number (BN)	mg KOH/g ASTM D2896		10.41	10.2	9.56

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE	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	>0.2	NEG	NEG	NEG
Free Water	scalar *Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445		▲ 11.2	▲ 11.4	▲ 11.7

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012841 **Received** : 29 Sep 2023
Lab Number : 05964787 **Diagnosed** : 03 Oct 2023
Unique Number : 10671338 **Diagnostician** : Angela Borella
Test Package : MOB 2 (Additional Tests: PercentFuel, PrtCount)

CONOR
 JUAREZ 348
 HERMOSILLO,
 MX 83140
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 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)