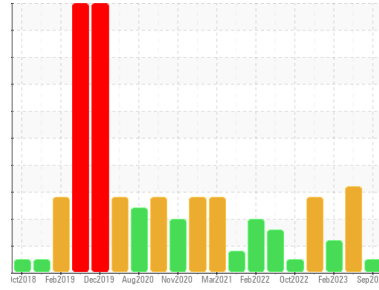




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



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

DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 Fuel content negligible. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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	history1	history2
Sample Number	Client Info	KL0012878	KL0012324	KL0010222
Sample Date	Client Info	20 Sep 2023	30 Mar 2023	17 Feb 2023
Machine Age	hrs	11690	11680	11196
Oil Age	hrs	10	508	1403
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		NORMAL	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	9	24	20
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	4	<1	0
Lead	ppm	ASTM D5185m >40	1	0	2
Copper	ppm	ASTM D5185m >330	1	12	11
Tin	ppm	ASTM D5185m >15	<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	32	1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	19	8
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	5	71	12
Calcium	ppm	ASTM D5185m	2604	3068	3053
Phosphorus	ppm	ASTM D5185m	1168	1118	1262
Zinc	ppm	ASTM D5185m	1409	1478	1538
Sulfur	ppm	ASTM D5185m	3870	3987	4041

CONTAMINANTS

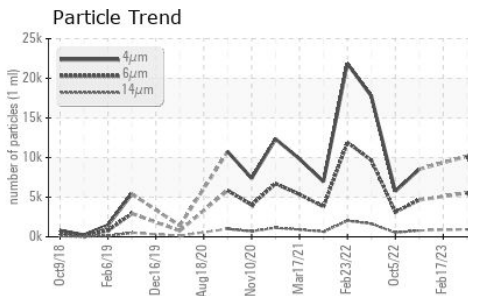
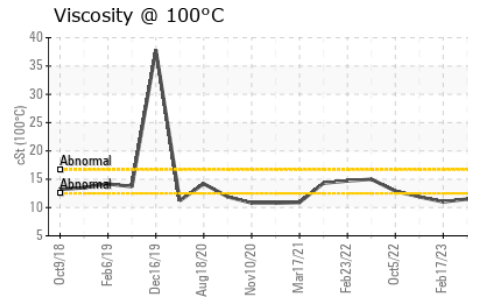
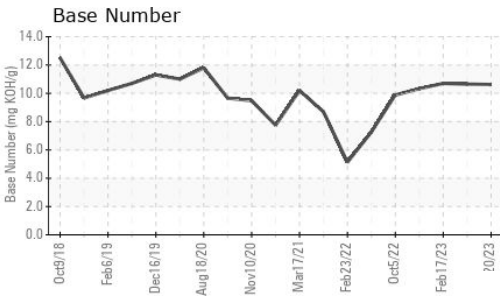
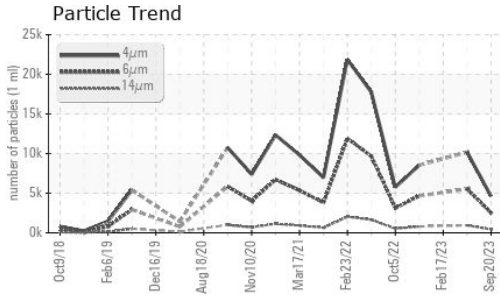
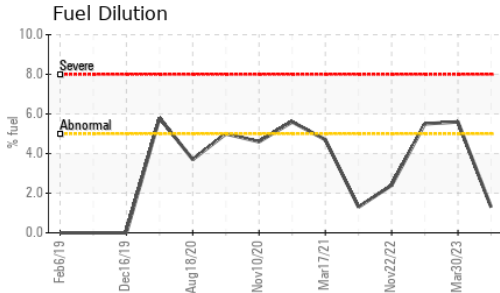
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	19	11	13
Sodium	ppm	ASTM D5185m	2	3	8
Potassium	ppm	ASTM D5185m >20	3	14	22
Fuel	%	ASTM D3524 >5	1.3	▲ 5.6	▲ 5.5

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	3.9	11.0	9.9
Sulfation	Abs./1mm	*ASTM D7415 >30	12.2	21.8	19.7



OIL ANALYSIS REPORT



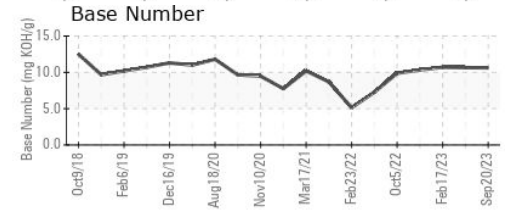
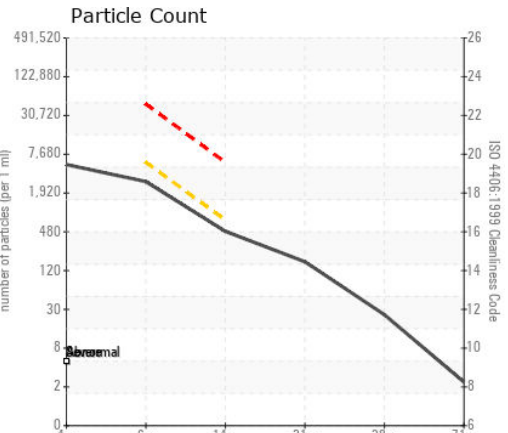
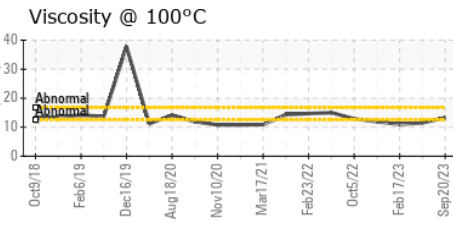
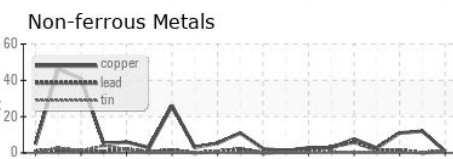
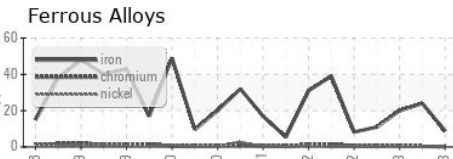
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		4628	10170	---
Particles >6µm	ASTM D7647	>5000	2521	▲ 5540	---
Particles >14µm	ASTM D7647	>640	429	▲ 943	---
Particles >21µm	ASTM D7647	>160	145	▲ 318	---
Particles >38µm	ASTM D7647	>40	22	▲ 49	---
Particles >71µm	ASTM D7647	>10	2	5	---
Oil Cleanliness	ISO 4406 (c)	>19/16	19/16	▲ 20/17	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	5.8	16.6	12.9
Base Number (BN)	mg KOH/g ASTM D2896		10.62	10.65	10.7

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		13.3	▲ 11.5	▲ 11.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012878 **Received** : 29 Sep 2023
Lab Number : 05964764 **Diagnosed** : 03 Oct 2023
Unique Number : 10671315 **Diagnostician** : Angela Borella
Test Package : MOB 2 (Additional Tests: PercentFuel, PrtCount)

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

Certificate L2367
 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)