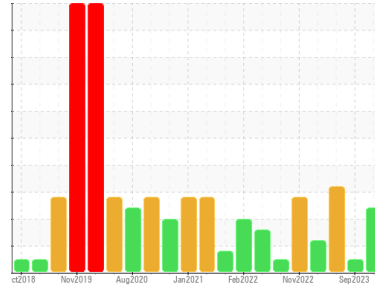




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. 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. Fuel content negligible.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KL0013327	KL0012878	KL0012324
Sample Date	Client Info		25 Oct 2023	20 Sep 2023	30 Mar 2023
Machine Age	hrs	Client Info	12241	11690	11680
Oil Age	hrs	Client Info	561	10	508
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			ABNORMAL	NORMAL	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	25	9	24
Chromium	ppm	ASTM D5185m >20	0	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	4	<1
Lead	ppm	ASTM D5185m >40	4	1	0
Copper	ppm	ASTM D5185m >330	10	1	12
Tin	ppm	ASTM D5185m >15	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	32
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	<1	19
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	5	5	71
Calcium	ppm	ASTM D5185m	2637	2604	3068
Phosphorus	ppm	ASTM D5185m	1104	1168	1118
Zinc	ppm	ASTM D5185m	1276	1409	1478
Sulfur	ppm	ASTM D5185m	3406	3870	3987

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	19	19	11
Sodium	ppm	ASTM D5185m	3	2	3
Potassium	ppm	ASTM D5185m >20	3	3	14
Fuel	%	ASTM D3524 >5	1.7	1.3	▲ 5.6

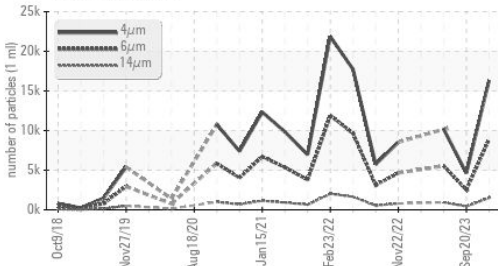
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0	0.2
Nitration	Abs/cm	*ASTM D7624 >20	8.0	3.9	11.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.9	12.2	21.8

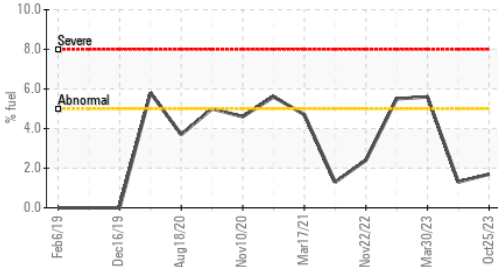


OIL ANALYSIS REPORT

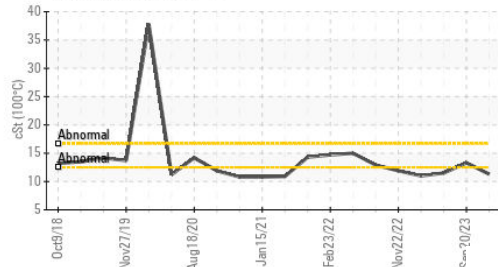
Particle Trend



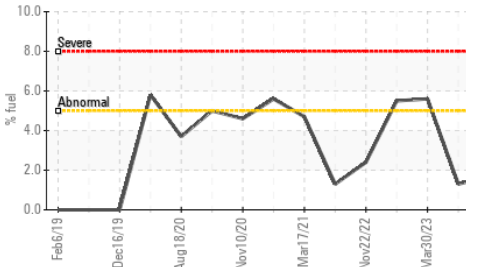
Fuel Dilution



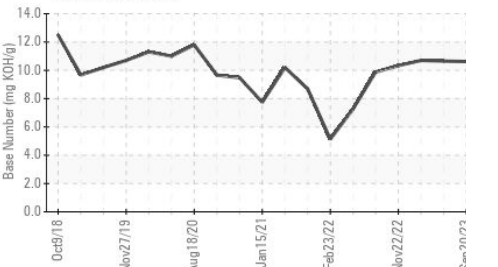
Viscosity @ 100°C



Fuel Dilution



Base Number



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		16321	4628	10170
Particles >6µm	ASTM D7647	>5000	▲ 8891	2521	▲ 5540
Particles >14µm	ASTM D7647	>640	▲ 1513	429	▲ 943
Particles >21µm	ASTM D7647	>160	▲ 510	145	▲ 318
Particles >38µm	ASTM D7647	>40	▲ 79	22	▲ 49
Particles >71µm	ASTM D7647	>10	8	2	5
Oil Cleanliness	ISO 4406 (c)	>19/16	▲ 20/18	19/16	▲ 20/17

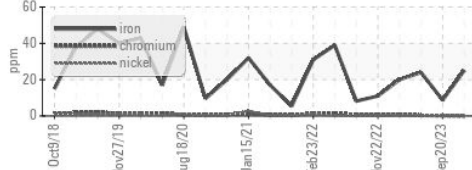
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414	>25	15.0	5.8	16.6
Base Number (BN)	mg KOH/g ASTM D2896		10.36	10.62	10.65

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

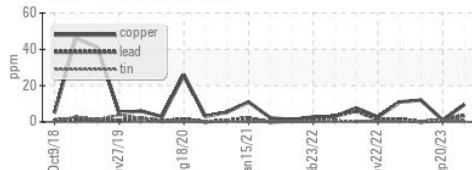
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445		▲ 11.3	13.3	▲ 11.5

GRAPHS

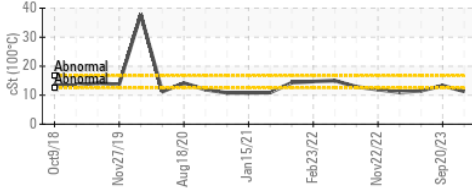
Ferrous Alloys



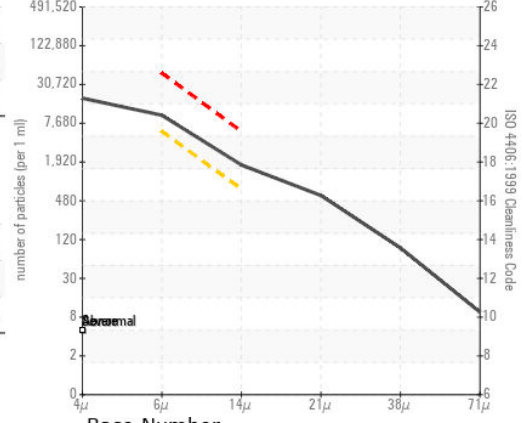
Non-ferrous Metals



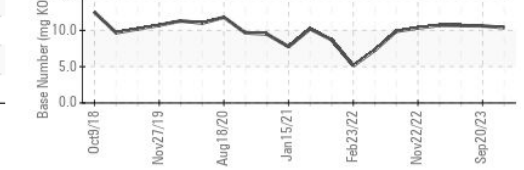
Viscosity @ 100°C



Particle Count



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013327 **Received** : 01 Nov 2023
Lab Number : 05996374 **Diagnosed** : 06 Nov 2023
Unique Number : 10724734 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel, 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)