



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
INDMAR SANGU BOAT 1

Component
Gasoline Engine

Fluid
TRC PRO-SPEC IV XP SYN BLEND 15W40 (8 QTS)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

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	TR05968408	---	---
Sample Date	Client Info	28 Sep 2023	---	---
Machine Age	hrs	Client Info	560	---
Oil Age	hrs	Client Info	160	---
Oil Changed	Client Info	Not Chngd	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	---
Glycol	WC Method		NEG	---

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>150	16	---
Chromium	ppm	ASTM D5185m	>20	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	---
Titanium	ppm	ASTM D5185m		<1	---
Silver	ppm	ASTM D5185m	>2	0	---
Aluminum	ppm	ASTM D5185m	>40	7	---
Lead	ppm	ASTM D5185m	>50	2	---
Copper	ppm	ASTM D5185m	>155	10	---
Tin	ppm	ASTM D5185m	>10	<1	---
Vanadium	ppm	ASTM D5185m		<1	---
Cadmium	ppm	ASTM D5185m		0	---

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		0	---
Barium	ppm	ASTM D5185m		0	---
Molybdenum	ppm	ASTM D5185m		117	---
Manganese	ppm	ASTM D5185m		<1	---
Magnesium	ppm	ASTM D5185m		18	---
Calcium	ppm	ASTM D5185m		3667	---
Phosphorus	ppm	ASTM D5185m		816	---
Zinc	ppm	ASTM D5185m		1032	---
Sulfur	ppm	ASTM D5185m		4195	---

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>30	▲ 68	---
Sodium	ppm	ASTM D5185m	>400	6	---
Potassium	ppm	ASTM D5185m	>20	8	---

INFRA-RED

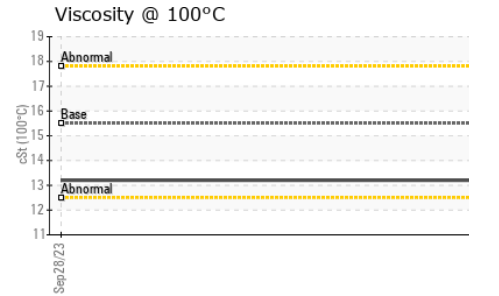
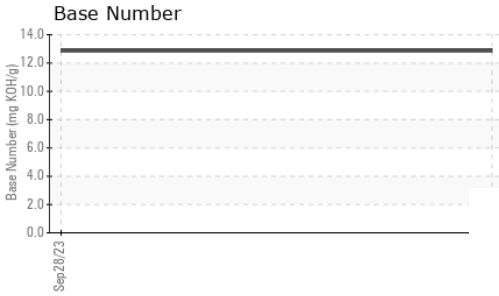
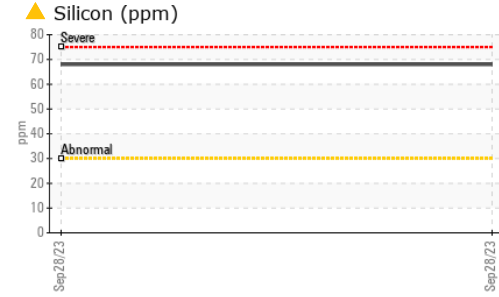
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0	---
Nitration	Abs/cm	*ASTM D7624	>20	11.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	---

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	---
Base Number (BN)	mg KOH/g	ASTM D2896		12.86	---



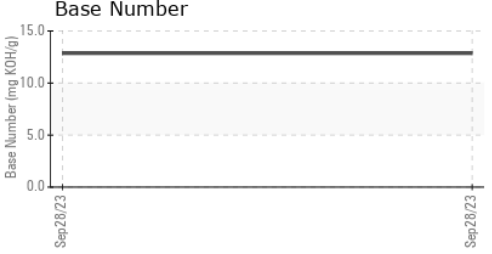
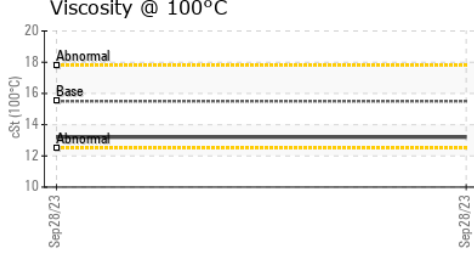
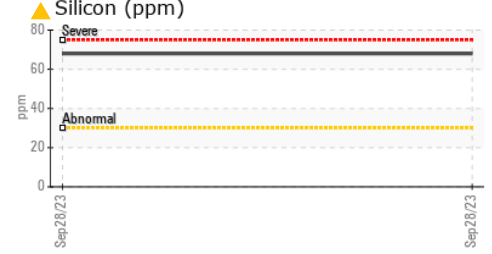
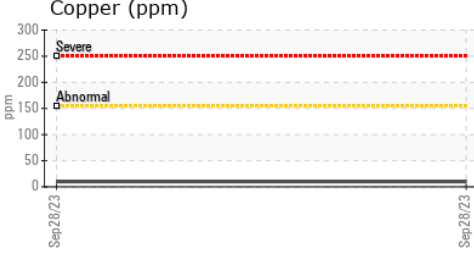
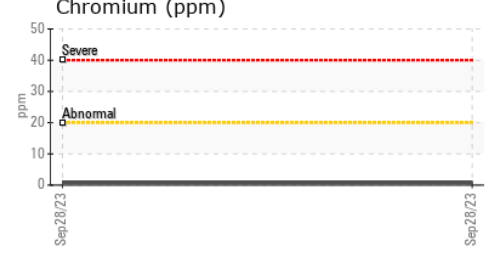
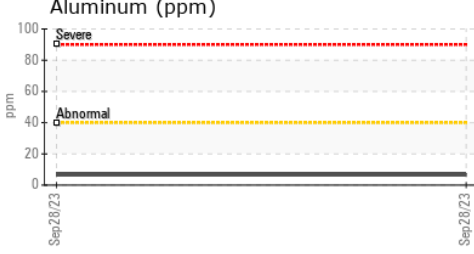
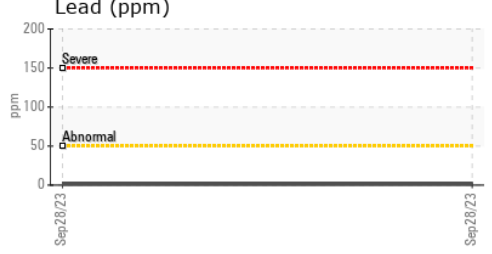
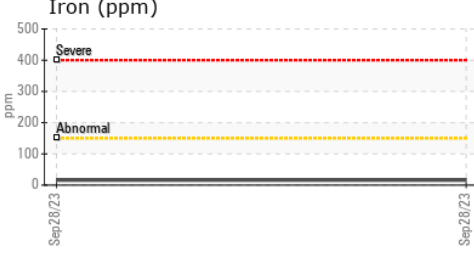
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	13.2	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05968408 **Received** : 03 Oct 2023
Lab Number : 05968408 **Diagnosed** : 04 Oct 2023
Unique Number : 10674959 **Diagnostician** : Doug Bogart
Test Package : MOB 2

MARK OPHEIM
 18809 N. 92ND WAY
 Scottsdale, AZ
 US 85255
 Contact: MARSCO

To discuss this sample report, contact Customer Service at 1-800-827-0711.
 * - 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)

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