



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
LUDINGTON TOWER
 Component
Diesel Engine
 Fluid
DISEL ENGINE OIL SAE 15W40 (--- QTS)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. 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 acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	RW0005084	---	---
Sample Date	Client Info	17 Nov 2023	---	---
Machine Age	hrs Client Info	2569	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	---	---
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >100	37	---	---
Chromium ppm	ASTM D5185m >20	2	---	---
Nickel ppm	ASTM D5185m >4	1	---	---
Titanium ppm	ASTM D5185m	0	---	---
Silver ppm	ASTM D5185m >3	0	---	---
Aluminum ppm	ASTM D5185m >20	3	---	---
Lead ppm	ASTM D5185m >40	10	---	---
Copper ppm	ASTM D5185m >330	1	---	---
Tin ppm	ASTM D5185m >15	3	---	---
Vanadium ppm	ASTM D5185m	0	---	---
Cadmium ppm	ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 250	3	---	---
Barium ppm	ASTM D5185m 10	0	---	---
Molybdenum ppm	ASTM D5185m 100	63	---	---
Manganese ppm	ASTM D5185m	<1	---	---
Magnesium ppm	ASTM D5185m 450	966	---	---
Calcium ppm	ASTM D5185m 3000	1095	---	---
Phosphorus ppm	ASTM D5185m 1150	1078	---	---
Zinc ppm	ASTM D5185m 1350	1277	---	---
Sulfur ppm	ASTM D5185m 4250	2914	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	▲ 27	---	---
Sodium ppm	ASTM D5185m >158	5	---	---
Potassium ppm	ASTM D5185m >20	2	---	---

INFRA-RED

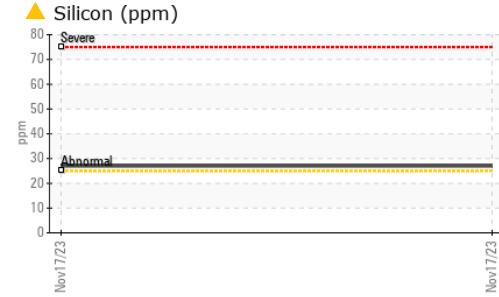
method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	0.1	---	---
Nitration	*ASTM D7624 >20	7.1	---	---
Sulfation	*ASTM D7415 >30	18.2	---	---

FLUID DEGRADATION

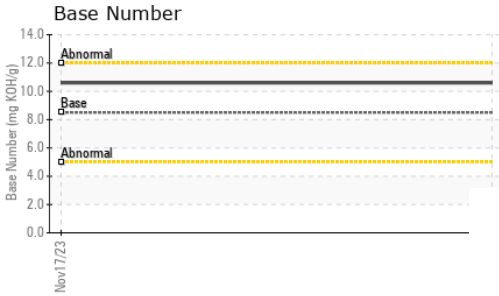
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	13.5	---	---
Base Number (BN)	mg KOH/g ASTM D2896 8.5	10.60	---	---



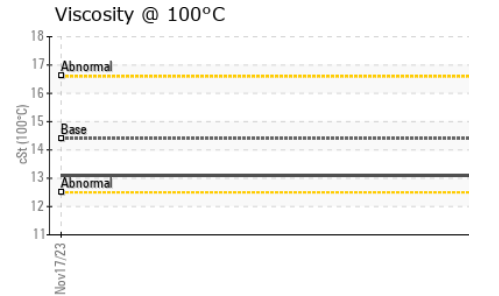
OIL ANALYSIS REPORT



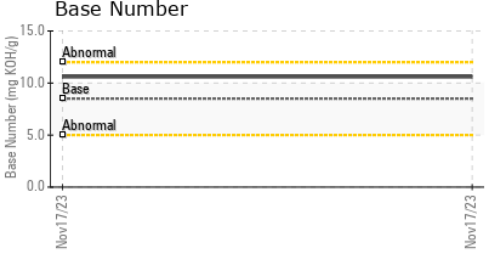
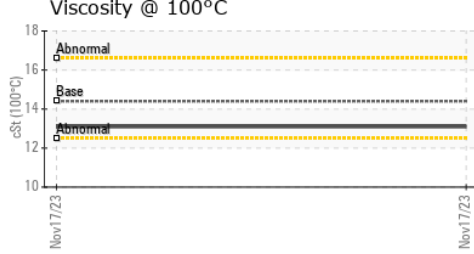
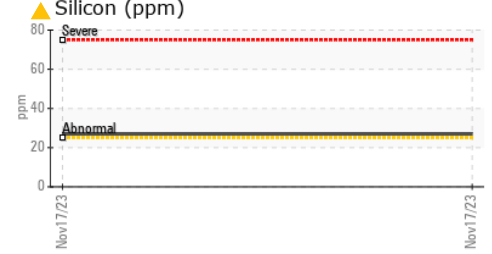
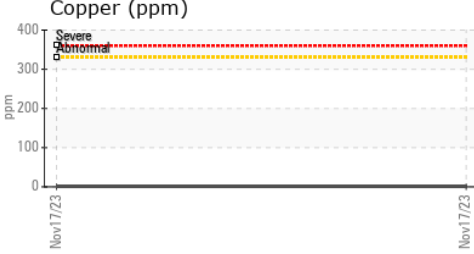
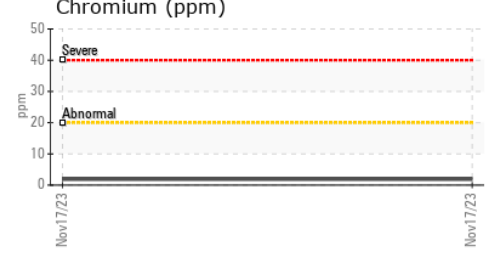
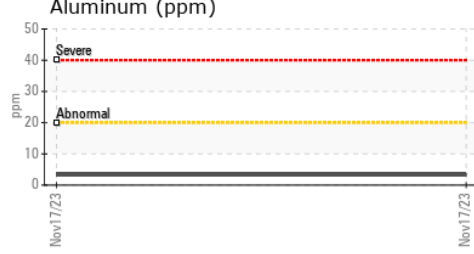
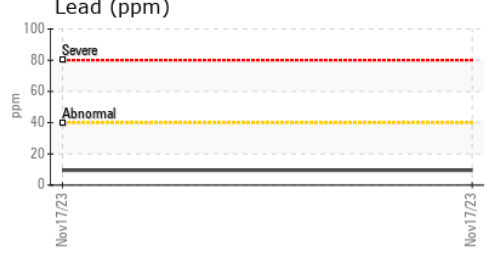
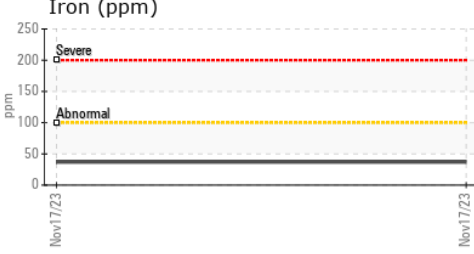
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	14.4	13.1	---



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0005084 **Received** : 24 Nov 2023
Lab Number : 06016663 **Diagnosed** : 28 Nov 2023
Unique Number : 10755807 **Diagnostician** : Sean Felton
Test Package : MOB 2

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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)