



LEAHY-WOLF
Lubricating specialists since 1946

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area

TA Machines

Machine Id

TA621 Sany SW3054CD00128 Wheel loader

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0009076	---	---
Sample Date		Client Info		31 May 2024	---	---
Machine Age	hrs	Client Info		210	---	---
Oil Age	hrs	Client Info		210	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	31	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	8	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	12	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Light fuel dilution occurring.

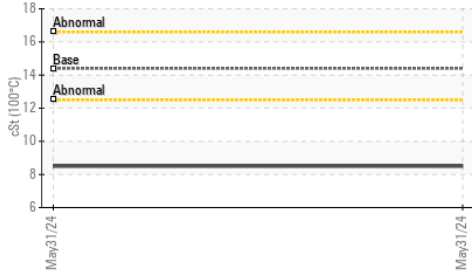
Silicon	ppm	ASTM D5185m	>25	14	---	---
Potassium	ppm	ASTM D5185m	>20	5	---	---
Fuel	%	ASTM D3524	>5	▲ 3.8	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	4.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.1	---	---
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	---	---

FLUID CONDITION

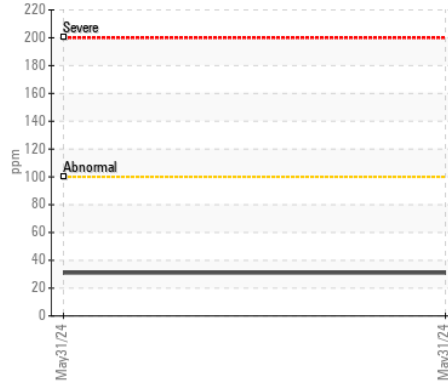
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>158	4	---	---
Boron	ppm	ASTM D5185m	250	18	---	---
Barium	ppm	ASTM D5185m	10	<1	---	---
Molybdenum	ppm	ASTM D5185m	100	19	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m	450	253	---	---
Calcium	ppm	ASTM D5185m	3000	1297	---	---
Phosphorus	ppm	ASTM D5185m	1150	828	---	---
Zinc	ppm	ASTM D5185m	1350	920	---	---
Sulfur	ppm	ASTM D5185m	4250	4465	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.9	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 8.5	---	---

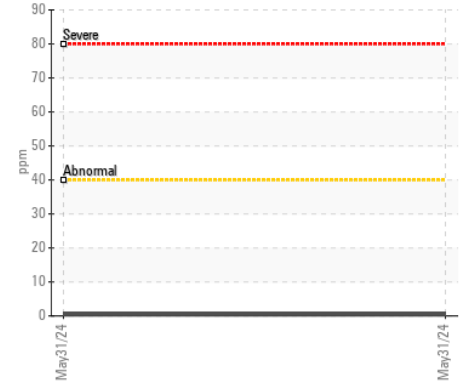
▲ Viscosity @ 100°C



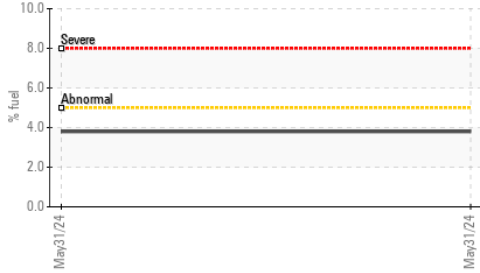
Iron (ppm)



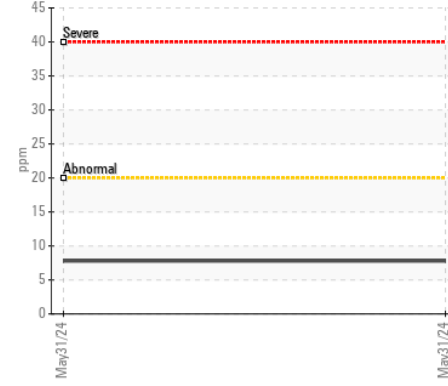
Lead (ppm)



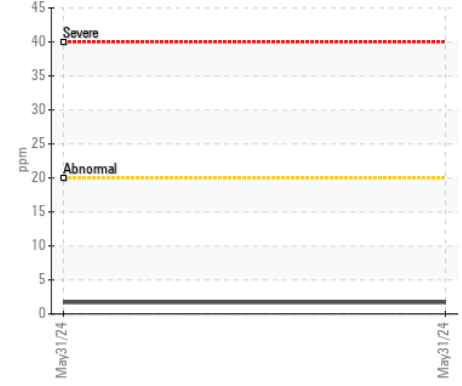
▲ Fuel Dilution



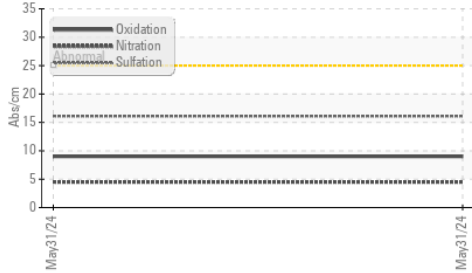
Aluminum (ppm)



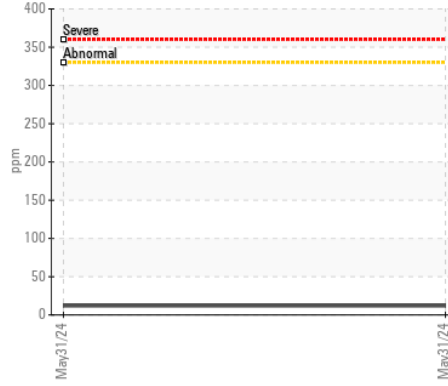
Chromium (ppm)



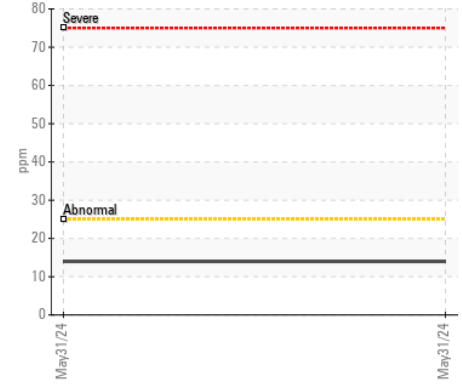
FT-IR (Direct Trend)



Copper (ppm)



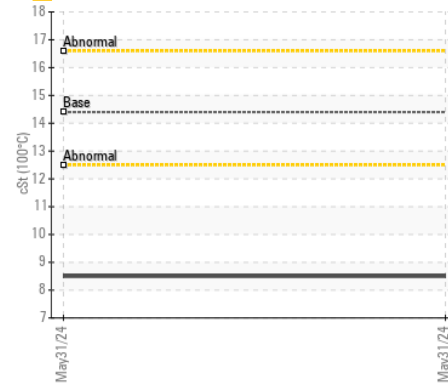
Silicon (ppm)



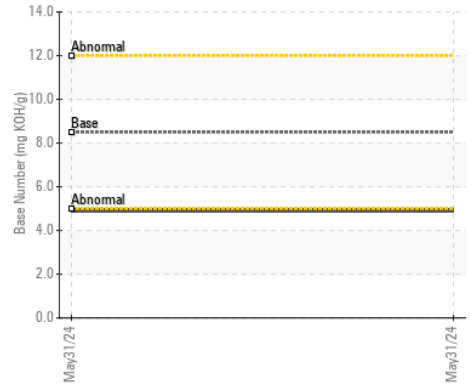
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009076 **Received** : 17 Jun 2024
Lab Number : 06211390 **Tested** : 19 Jun 2024
Unique Number : 11084254 **Diagnosed** : 19 Jun 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)