WEAR CONTAMINATION FLUID CONDITION

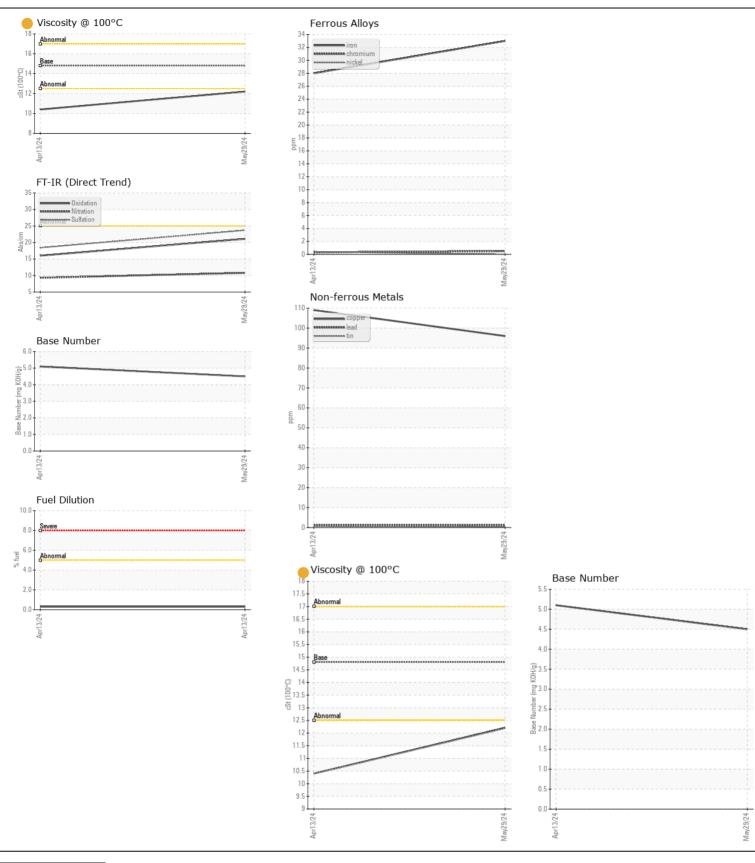
NORMAL NORMAL ATTENTION

Machine Id **12381** 

Component Diesel Engine

SAE 0W40 (--- QTS)

SAE 0W40 ( QTS)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
TECOMMENDATION	Sample Number		Client Info		WC0913612	WC0924506	
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		29 May 2024	13 Apr 2024	
	Machine Age	mls	Client Info		15241	8352	
	Oil Age	mls	Client Info		0	0	
	Filter Age	mls	Client Info		0	0	
	Oil Changed	0	Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ATTENTION	ATTENTION	
WEAD			40TM D5405	400		~~	
WEAR	Iron	ppm	ASTM D5185m		33	28	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	<1	
	Nickel	ppm	ASTM D5185m	>4	0	<1	
	Titanium	ppm	ASTM D5185m		2	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m	>20	4	5	
	Lead	ppm	ASTM D5185m		1	1	
	Copper	ppm	ASTM D5185m	>330	96	109	
	Tin	ppm	ASTM D5185m	>15	<1	<1	
	Vanadium	ppm	ASTM D5185m		0	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	17	11	
OSITI AMIN'A TISIT	Potassium	ppm	ASTM D5185m		4	17	
There is no indication of any contamination in the oil.	Fuel	%	ASTM D3524		<1.0	0.3	
	Water	,,,	WC Method		NEG	NEG	
	Glycol		WC Method	7 U.L	NEG	NEG	
	Soot %	%	*ASTM D7844	<b>\</b> 3	0.1	0	
	Nitration	Abs/cm	*ASTM D7624		10.8	9.3	
	Sulfation	Abs/.1mm	*ASTM D7415		23.7	18.4	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
			*Visual				
	Sand/Dirt	scalar		NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4	7	
	Boron	ppm	ASTM D5185m		27	14	
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m		0	3	
	Molybdenum	ppm	ASTM D5185m		179	71	
	Manganese	ppm	ASTM D5185m		20	9	
	Magnesium	ppm	ASTM D5185m		637	555	
	Calcium	ppm	ASTM D5185m		1002	1053	
	Phosphorus	ppm	ASTM D5185m		544	672	
	Zinc	ppm	ASTM D5185m		682	820	
			ASTM D5185m		2584	2260	
	Sulfur	DDM					
	Sulfur Oxidation	ppm Abs/.1mm		>25			
	Sulfur Oxidation Base Number (BN)	Abs/.1mm	*ASTM D7414 ASTM D2896	>25	21.1 4.5	16.0 5.1	







Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 **Lab Number** : 06196153 Unique Number : 11058276

: WC0913612

Received **Tested** 

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Diagnosed Test Package : CONST ( Additional Tests: FuelDilution, TBN )

: 02 Jun 2024

: 02 Jun 2024 - Don Baldridge

: 30 May 2024

Contact: SCOTT SULLIVAN ssullivan@sullivaneastern.com T: (919)484-8993

**SULLIVAN EASTERN INC** 

2860 C SLATER RD

MORRISVILLE, NC

F: (919)484-2136

Certificate L2367

Report Id: MSCDUR [WUSCAR] 06196153 (Generated: 06/02/2024 13:01:55) Rev: 1

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.

Contact/Location: SCOTT SULLIVAN - MSCDUR

US 27560