WEAR CONTAMINATION **FLUID CONDITION**

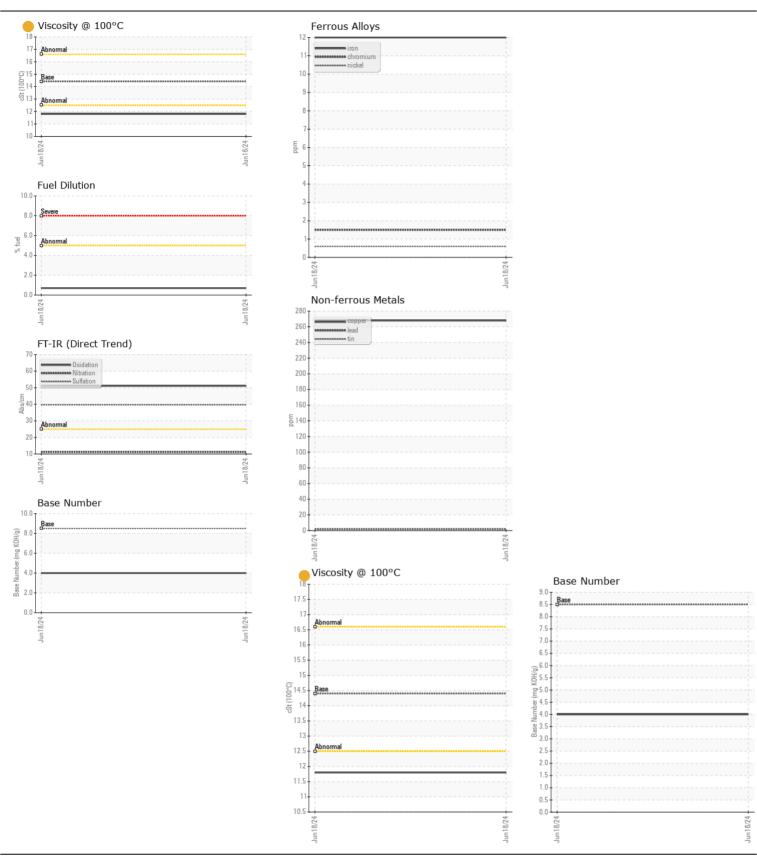
NORMAL NORMAL ATTENTION

Machine Id

31266

Component Diesel Engine

DIESEL ENGINE OIL 10W40 (QTS)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
O'll and Change have a state that the state of a smaller has been maded. December	Sample Number		Client Info		WC0950697		
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		18 Jun 2024		
	Machine Age	hrs	Client Info		499		
	Oil Age	hrs	Client Info		500		
	Filter Age	hrs	Client Info		500		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ATTENTION		
WEAD.	lua ia		ACTM DE10E	100	40		
WEAR	Iron	ppm	ASTM D5185m		12		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m		2		
	Nickel	ppm	ASTM D5185m	>4	<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		<1		
	Aluminum	ppm	ASTM D5185m		3		
	Lead	ppm	ASTM D5185m		2		
	Copper	ppm	ASTM D5185m		268		
	Tin	ppm	ASTM D5185m	>15	2		
	Vanadium	ppm	ASTM D5185m	NONE	<1 NONE		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		10		
Fuel content negligible. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	5		
	Fuel	%	ASTM D3524		0.7		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	11.2		
	Sulfation	Abs/.1mm	*ASTM D7415		39.7		
	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	Sodium	ppm	ASTM D5185m		<1		
	Boron	ppm	ASTM D5185m	250	91		
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		26		
	Molybdenum	ppm	ASTM D5185m		45		
	Manganese	ppm	ASTM D5185m		2		
	Magnesium	ppm	ASTM D5185m	450	863		
	Calcium	ppm	ASTM D5185m		1332		
	Phosphorus	ppm	ASTM D5185m		608		
	Zinc	ppm	ASTM D5185m		867		
	Sulfur	ppm	ASTM D5185m		2174		
			*ASTM D7414	>25	51.1		
	Oxidation Base Number (BN)	Abs/.1mm	*ASTM D7414 ASTM D2896		51.1 4.0		







Certificate L2367

Report Id: MSCDUR [WUSCAR] 06219527 (Generated: 06/30/2024 18:12:56) Rev: 1

Laboratory Sample No.

Lab Number : 06219527 Unique Number : 11097724

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0950697

Received **Tested** Diagnosed

: 25 Jun 2024 : 28 Jun 2024 Test Package: CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

: 28 Jun 2024 - Jonathan Hester To discuss this sample report, contact Customer Service at 1-800-237-1369.

SULLIVAN EASTERN INC 2860 C SLATER RD MORRISVILLE, NC US 27560 Contact: SCOTT SULLIVAN ssullivan@sullivaneastern.com

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (919)484-8993 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)484-2136