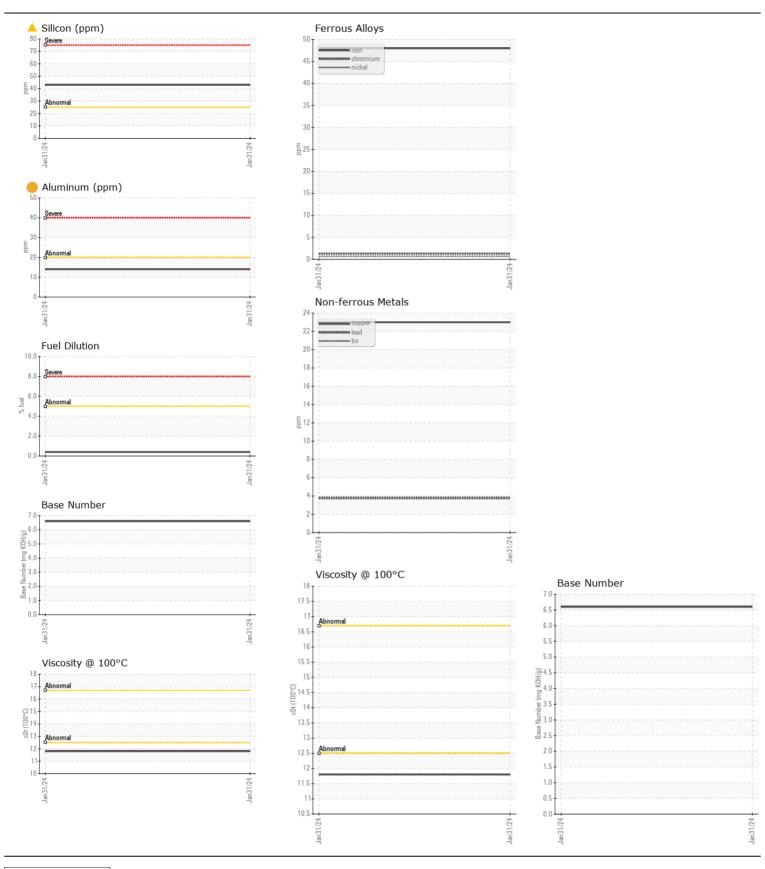
WEAR CONTAMINATION **FLUID CONDITION** **ATTENTION ABNORMAL NORMAL**

Machine Id

16418							
Component Diesel Engine							
{not provided} (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		IL0029418		
	Sample Date		Client Info		31 Jan 2024		
	Machine Age	mls	Client Info		0		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ABNORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	48		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	1		
	Nickel	ppm	ASTM D5185m	>4	<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m	>3	<1		
	Aluminum	ppm	ASTM D5185m	>20	1 4		
	Lead	ppm	ASTM D5185m	>40	4		
	Copper	ppm	ASTM D5185m	>330	23		
	Tin	ppm	ASTM D5185m	>15	4		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		4 3		
Fuel content negligible. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.	Potassium	ppm	ASTM D5185m		51		
	Fuel	%	ASTM D3524		0.4		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.4		
	Nitration	Abs/cm	*ASTM D7624	>20	9.2		
	Sulfation	Abs/.1mm	*ASTM D7415		21.5		
	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		6		
	Boron	ppm	ASTM D5185m		50		
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.	Barium	ppm	ASTM D5185m		5		
	Molybdenum	ppm	ASTM D5185m		71		
	Manganese	ppm	ASTM D5185m		5		
	Magnesium	ppm	ASTM D5185m		487		
	Calcium	ppm	ASTM D5185m		1820		
	Phosphorus	ppm	ASTM D5185m		1064		
	Zinc	ppm	ASTM D5185m		1292		
	Sulfur	ppm	ASTM D5185m		3415		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2		
	Base Number (BN)	mg KOH/g	ASTM D2896		6.6		
	Visc @ 100°C	cSt	ASTM D445		11.8		
	<u> </u>	-					







Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06121364

: IL0029418

Received **Tested** Unique Number: 10930197

: 18 Mar 2024 : 21 Mar 2024 Diagnosed

: 21 Mar 2024 - Jonathan Hester Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel)

RUSH TRUCK LEASING - BOISE IDEALEASE 770 WEST AMITY ROAD BOISE, ID US 83705

Contact: MATT BORCHARDT borchardtm@rushenterprises.com

Contact/Location: MATT BORCHARDT - IDEBOI

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)

F: (208)639-4859