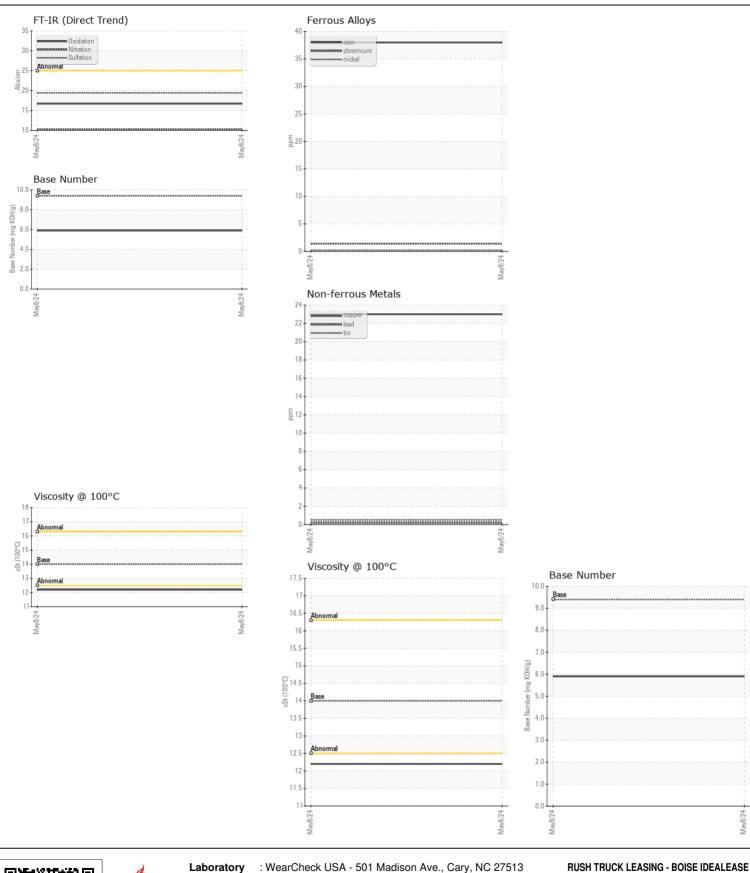
WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

Machine Id **75567**

Component
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		IL0036154		
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		08 May 2024		
	Machine Age	mls	Client Info		30287		
	Oil Age	mls	Client Info		16753		
	Filter Age	mls	Client Info		16753		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
VEAD				400			
WEAR	Iron	ppm	ASTM D5185m		38		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m		1		
	Nickel	ppm	ASTM D5185m	>4	<1		
	Titanium	ppm	ASTM D5185m	6	<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		48		
	Lead	ppm	ASTM D5185m		<1		
	Copper	ppm	ASTM D5185m		23		
	Tin	ppm	ASTM D5185m	>15	<1 0		
	Vanadium White Metal	ppm	*Visual	NONE	-		
		scalar		NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	10		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	92		
	Fuel	%	ASTM D3524	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.2		
	Nitration	Abs/cm	*ASTM D7624	>20	10.2		
	Sulfation	Abs/.1mm	*ASTM D7415		19.4		
	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	0	63		
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		0		
	Molybdenum	ppm	ASTM D5185m		101		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	0	700		
	Calcium	ppm	ASTM D5185m		1284		
	Phosphorus	ppm	ASTM D5185m		702		
	Zinc	ppm	ASTM D5185m		970		
	Sulfur	ppm	ASTM D5185m		3223		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7		
	Base Number (BN)	mg KOH/g	ASTM D2896	9.4	5.9		
	Visc @ 100°C	cSt	ASTM D445	14	12.2		







Certificate L2367

Report Id: IDEBOI [WUSCAR] 06209906 (Generated: 06/22/2024 05:19:15) Rev: 1

Laboratory Sample No. Unique Number : 11082770

Lab Number : 06209906

: IL0036154

Received

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

: 14 Jun 2024 **Tested** : 19 Jun 2024 Diagnosed : 19 Jun 2024 - Jonathan Hester

770 WEST AMITY ROAD BOISE, ID

US 83705 Contact: MATT BORCHARDT

Test Package : FLEET (Additional Tests: FuelDilution) 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.

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