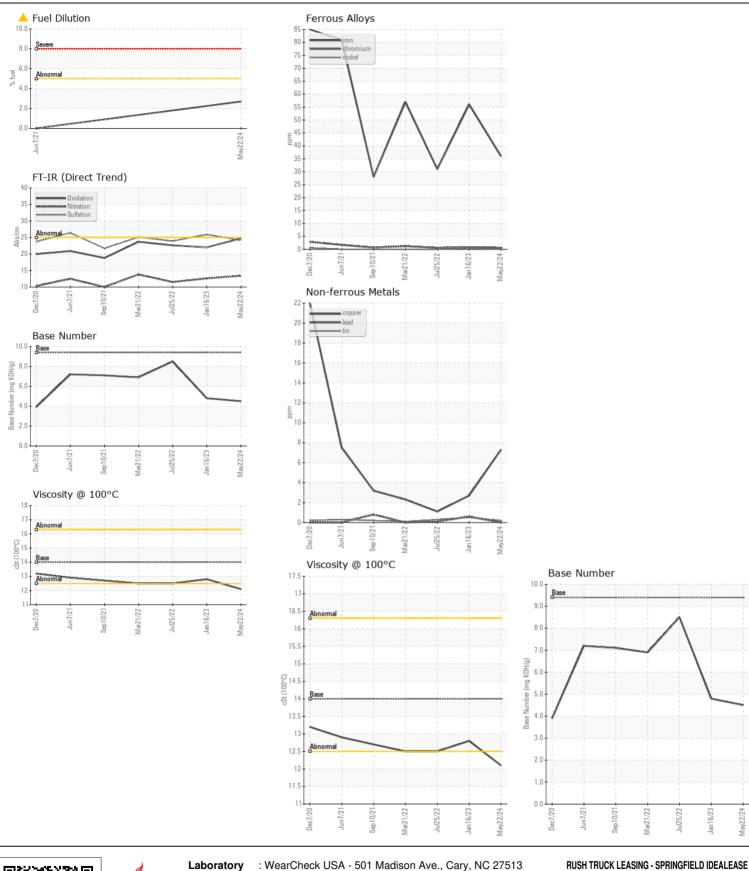
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL MARGINAL NORMAL

Machine Id

61950
Component
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		IL0025732	IL0029801	IL001918
	Sample Date		Client Info		22 May 2024	16 Jan 2023	25 Jul 202
	Machine Age	mls	Client Info		4652	0	0
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		N/A	Changed	Changed
	Filter Changed		Client Info		N/A	Changed	Changed
	Sample Status				MARGINAL	NORMAL	NORMAI
WEAR	Iron	ppm	ASTM D5185m	>100	36	56	31
	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m	>4	0	<1	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	<1	0	0
	Aluminum	ppm	ASTM D5185m	>20	15	5	6
	Lead	ppm	ASTM D5185m	>40	0	<1	<1
	Copper	ppm	ASTM D5185m	>330	7	3	1
	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NON
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NON
CONTAMINATION	Silicon	nnm	ASTM D5185m	> 25	6	6	6
CONTAININATION	Potassium	ppm	ASTM D5185m		11	8	5
Light fuel dilution occurring. No other contaminants were detected in the oil.	Fuel	%	ASTM D316311		<u>^</u> 2.7	<1.0	<1.0
	Water	70	WC Method		NEG	NEG	NEG
	Glycol		WC Method	7 0.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.4	0.5	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	13.4	12.6	11.5
	Sulfation	Abs/.1mm	*ASTM D7415	>30	24.1	25.9	23.9
	Silt	scalar	*Visual	NONE	NONE	NONE	NON
	Debris	scalar	*Visual	NONE	NONE	NONE	NON
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NON
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORN
	Odor	scalar	*Visual	NORML	NORML	NORML	NORN
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	2	3
ESIB SONBITION	Boron	ppm	ASTM D5185m	0	49	28	49
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		113	20	31
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	0	666	679	576
	Calcium	ppm	ASTM D5185m		1574	1394	1563
	Phosphorus	ppm	ASTM D5185m		770	625	689
	Zinc	ppm	ASTM D5185m		924	864	909
	Sulfur	ppm	ASTM D5185m		3406	3259	2821
	Oxidation	Abs/.1mm	*ASTM D7414	>25	24.7	22.0	22.6
	Base Number (BN)	mg KOH/g	ASTM D2896	9.4	4.5	4.8	8.5
		cSt		14	12.1	12.8	12.5







Certificate L2367

Laboratory Sample No.

: IL0025732 Lab Number : 06188793

Unique Number : 11045545

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Tested Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel)

Diagnosed

Received

: 29 May 2024 : 29 May 2024 - Wes Davis

: 23 May 2024

3441 GATLIN DR SPRINGFIELD, IL US 62707

Contact: TODD CRUMPLER crumplerc@rushenterprises.com

T: (217)718-2341

* - 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)

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