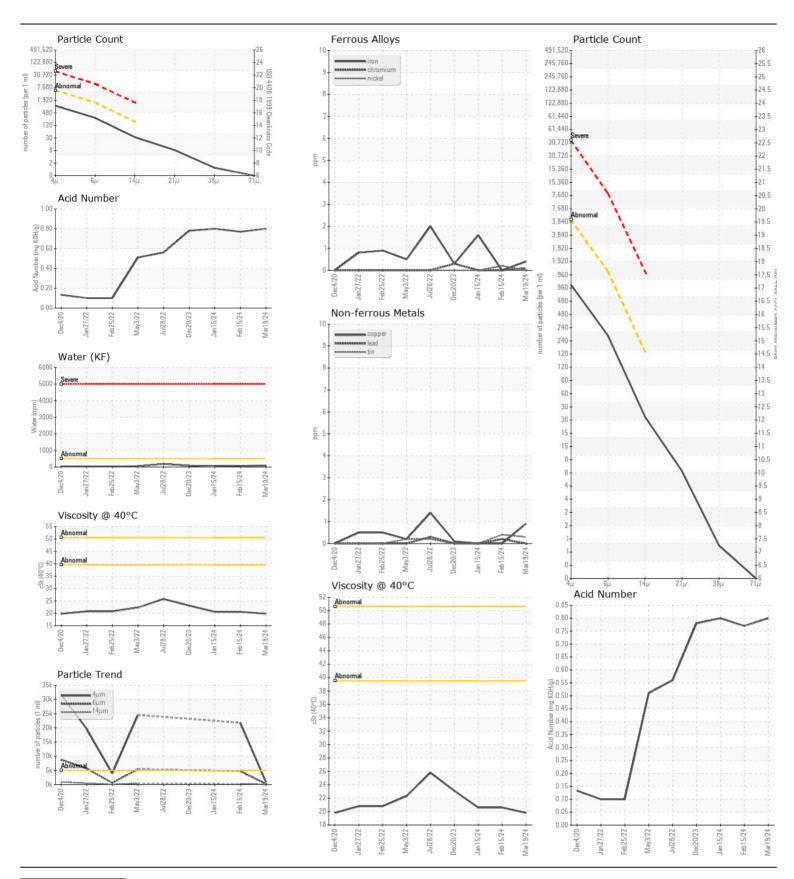


WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

Machine Id **TR-2**

Component
Hydraulic System

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number	OOW	Client Info	LITTIU/ADTI	WC06124930	WC06093613	
	Sample Date		Client Info		19 Mar 2024	15 Feb 2024	15 Jan 2024
	Machine Age	hrs	Client Info		0	0	0
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	ABNORMAL	ABNORMA
WEAR	Iron	ppm	ASTM D5185m	>20	<1	0	2
	Chromium	ppm	ASTM D5185m	>20	<1	0	0
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	<1	0
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>20	0	0	1
	Lead	ppm	ASTM D5185m		0	<1	0
	Copper	ppm	ASTM D5185m	>20	<1	0	0
	Tin	ppm	ASTM D5185m	>20	<1	<1	0
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>15	0	0	<1
SONTAMINATION	Potassium	ppm	ASTM D5185m		0	2	<1
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.	Water	%	ASTM D6304		0.008	0.006	0.004
	ppm Water	ppm	ASTM D6304		90	63	44
	Particles >4µm	PP	ASTM D7647		916	<u>^</u> 21794	
	Particles >6µm		ASTM D7647		242	<u></u> 4743	
	Particles >14µm		ASTM D7647	>160	29	<u>^</u> 280	
	Particles >21µm		ASTM D7647	>40	7	<u></u> 61	
	Particles >38µm		ASTM D7647	>10	1	2	
	Particles >71µm		ASTM D7647	>3	0	0	
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/12	<u>^</u> 22/19/15	
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	LIGHT	NONE	▲ MODE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORN
	Odor	scalar	*Visual	NORML	NORML	NORML	NORN
	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	2	0
	Boron	ppm	ASTM D5185m		0	0	0
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	<1	0
	Molybdenum	ppm	ASTM D5185m		<1	0	0
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m		0	<1	<1
	Calcium	ppm	ASTM D5185m		0	3	<1
	Phosphorus	ppm	ASTM D5185m		268	277	307
	Zinc	ppm	ASTM D5185m		0	0	0
	Sulfur	ppm	ASTM D5185m		4462	3855	4390
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.80	0.77	0.80
	Visc @ 40°C	cSt	ASTM D445		19.8	20.6	2 0.6





Certificate L2367

Laboratory Sample No. Unique Number : 10939081

Lab Number : 06124930

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC06124930

Received : 21 Mar 2024 **Tested** Diagnosed Test Package : IND 2 (Additional Tests: KF)

: 22 Mar 2024

: 22 Mar 2024 - Wes Davis

Contact: CHRIS BARNES cbarnes@metalubeinc.com

T: (919)554-3024 F: (919)554-3023

METALUBE INC

56 CYPRESS DR

YOUNGSVILLE, NC

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)

US 27596