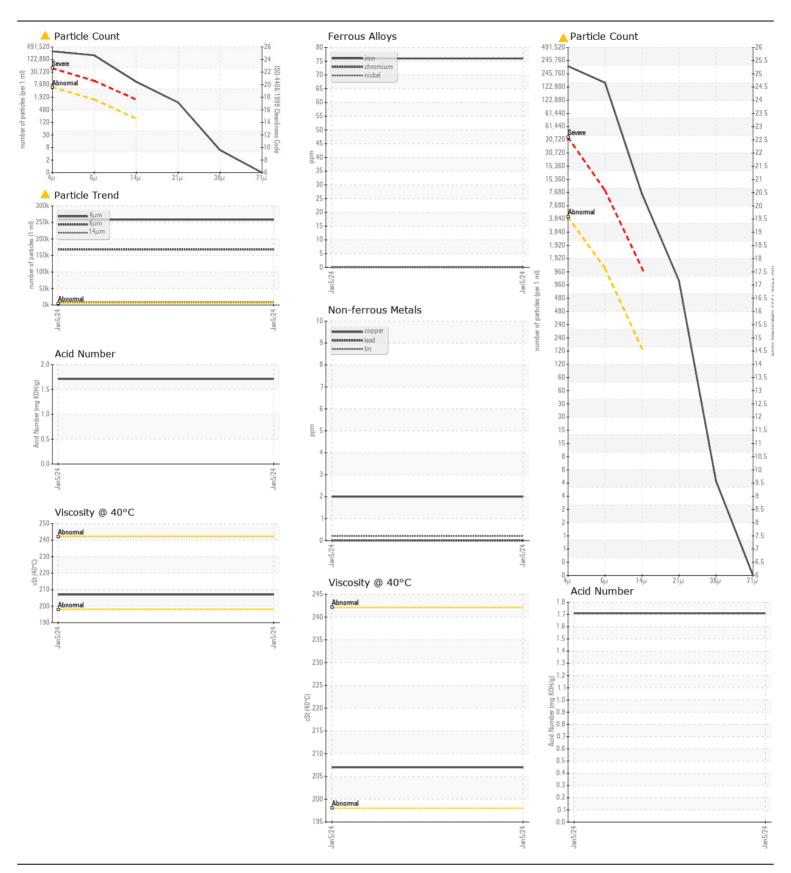
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL **ABNORMAL NORMAL**

RIG 252 R252-DW

Component Gearbox

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info	,	KL0013951		
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.	Sample Date		Client Info		05 Jan 2024		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				ABNORMAL		
VEAR	Iron	ppm	ASTM D5185m	>200	76		
VLAN	Chromium	ppm	ASTM D5185m		<1		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m	>10	0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m	>25	2		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		2		
	Tin	ppm	ASTM D5185m		- <1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
ONT A MINIA TION	0.1.		AOTM DE LOE				
CONTAMINATION	Silicon	ppm	ASTM D5185m		15		
There is a high amount of particulates present in the oil.	Potassium	ppm	ASTM D5185m		2		
	Water		WC Method		NEG		
	Particles >4µm		ASTM D7647		<u>^ 258402</u>		
	Particles >6µm Particles >14µm		ASTM D7647 ASTM D7647		▲ 167663 ▲ 9117		
	Particles >21µm		ASTM D7647		▲ 940		
	Particles >38µm		ASTM D7647		5		
	Particles >71µm		ASTM D7647		0		
	Oil Cleanliness		ISO 4406 (c)		<u>^</u> 25/25/20		
	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		
LUD CONDITION	- "						
LUID CONDITION	Sodium	ppm	ASTM D5185m		4		
The AN level is acceptable for this fluid. The condition of the oil is	Boron	ppm	ASTM D5185m		1		
suitable for further service.	Barium	ppm	ASTM D5185m		<1		
	Molybdenum	ppm	ASTM D5185m		0		
	Manganese	ppm	ASTM D5185m		2		
	Magnesium	ppm	ASTM D5185m		6		
	Calcium	ppm	ASTM D5185m		15 661		
	Phosphorus	ppm	ASTM D5185m		661		
	Zinc Sulfur	ppm	ASTM D5185m ASTM D5185m		18 1579		
	Acid Number (AN)	ppm mg KOH/g	ASTM D3163111 ASTM D8045		1578 1.71		
	Visc @ 40°C	cSt	ASTM D6045		207		





Laboratory Sample No. **Unique Number**

Lab Number

: KL0013951 : 06056635 : 10822584

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 10 Jan 2024 Recieved Diagnosed

: 11 Jan 2024 Diagnostician : Doug Bogart

Test Package : MOB 2 (Additional Tests: PrtCount) Certificate L2367 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)

PATTERSON - UTI DRILLING 9915 WEST INDUSTRIAL

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