WEAR CONTAMINATION **FLUID CONDITION**

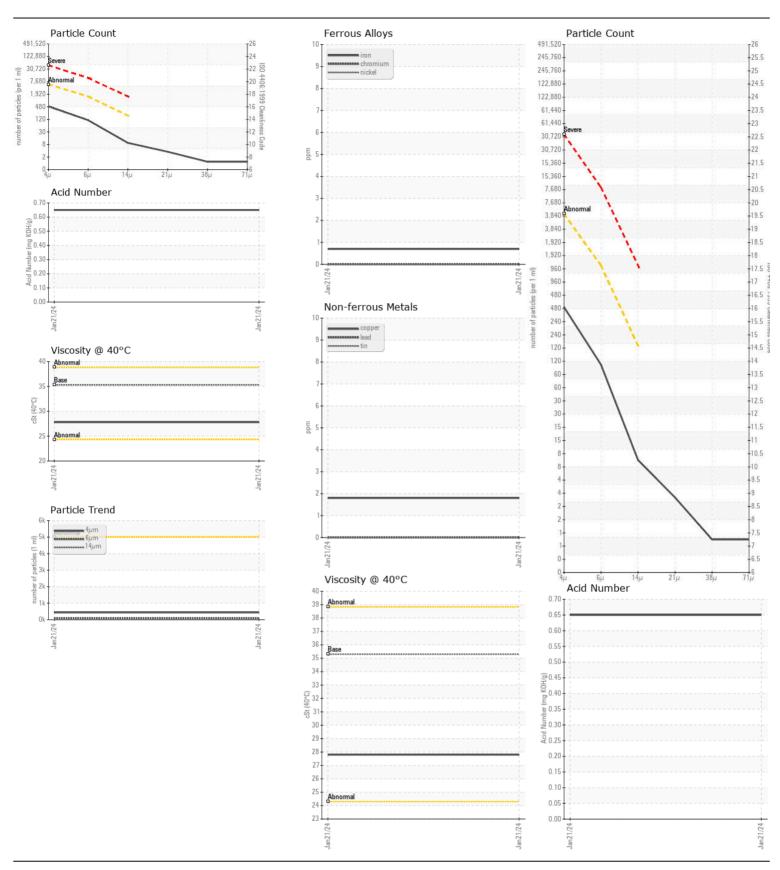
NORMAL NORMAL NORMAL

[13934482]

CAHE-HPU516159

Component Hydraulic System

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		PP		
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.	Sample Date		Client Info		21 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				NORMAL		
VEAR	Iron	ppm	ASTM D5185(m)	>20	<1		
VEAIT	Chromium	ppm	ASTM D5185(m)		0		
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)	>20	0		
	Titanium	ppm	ASTM D5185(m)	720	0		
	Silver	ppm	ASTM D5185(m)		0		
	Aluminum	ppm	ASTM D5185(m)	>20	0		
	Lead		ASTM D5185(m)	>20	0		
	Copper	ppm	ASTM D5185(m)	>20	2		
	Tin	ppm	ASTM D5185(m)	>20	0		
	Vanadium	ppm	ASTM D5185(m)	/20	0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>15	<1		
	Potassium	ppm	ASTM D5185(m)	>20	<1		
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.	Water		WC Method	>0.05	NEG		
	Particles >4µm		ASTM D7647	>5000	438		
	Particles >6µm		ASTM D7647	>1300	97		
	Particles >14µm		ASTM D7647	>160	8		
	Particles >21µm		ASTM D7647	>40	3		
	Particles >38µm		ASTM D7647	>10	1		
	Particles >71µm		ASTM D7647	>3	1		
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/14/10		
	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*	>0.05	NEG		
LUID CONDITION	Sodium	ppm	ASTM D5185(m)		2		
	Boron	ppm	ASTM D5185(m)		82		
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		0		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)		3		
	Calcium	ppm	ASTM D5185(m)		125		
	Phosphorus	ppm	ASTM D5185(m)		244		
	Zinc	ppm	ASTM D5185(m)		29		
	Sulfur	ppm	ASTM D5185(m)		1113		
	Acid Number (AN)	mg KOH/g	ASTM D974*		0.65		
	Visc @ 40°C	cSt	ASTM D7279(m)	35.3	27.8		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number

: PP : 02624968 Unique Number : 5750087 Test Package : MAR 2

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : 27 Mar 2024 Received **Tested** Diagnosed

: 28 Mar 2024 : 28 Mar 2024 - Wes Davis KCA Deutag Drilling Canada Inc. Suite 201, 45 Hebron Way St. John's, NL

CA A1A 0P9 Contact: Reg Costello

F: (709)730-1834

Hebron.MaintSuperintendent@kcadeutag.com T: (709)778-6228

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.