

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id ES019 Component Main Hydraulic System {not provided} (--- GAL)

DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0914605		
Sample Date		Client Info		11 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>20	<1		
Copper	ppm	ASTM D5185(m)	>20	2		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES		methou	11111/0430	Guirent	Thistory I	
Boron	ppm	ASTM D5185(m)	mmbddd	0		
	ppm ppm				· · · · · ·	
Boron		ASTM D5185(m)		0		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)		0 10		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0 0		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0 0 0 11	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0 0 0 11 467	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0 0 0 11 467 461		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 10 0 0 11 467 461 999		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 10 0 0 11 467 461 999 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 10 0 0 11 467 461 999 <1	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	limit/base	0 10 0 0 11 467 461 999 <1	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	0 10 0 0 11 467 461 999 <1 current 0 0	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	 	0 10 0 0 11 467 461 999 <1 <i>current</i> 0 0 0 <1	 history1 	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	0 10 0 0 11 467 461 999 <1 <i>current</i> 0 0 <1 <i>current</i>	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base >5000	0 10 0 0 11 467 461 999 <1 <i>current</i> 0 0 <1 <i>current</i> 4836	 history1 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	imit/base >15 >20 imit/base >5000 >1300 >160	0 10 0 0 11 467 461 999 <1 <i>current</i> 0 0 <1 <i>current</i> 4836 854	 history1 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	imit/base >15 >20 imit/base >5000 >1300 >160	0 10 0 0 11 467 461 999 <1 0 0 <1 0 0 <1 0 4836 854 55	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	0 10 0 0 11 467 461 999 <1 <i>current</i> 0 0 <1 <i>current</i> 4836 854 55 11		 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	0 10 0 10 0 11 467 461 999 <1 <i>current</i> 0 0 <1 <i>current</i> 4836 854 55 11 1		 history2 history2 history2



OIL ANALYSIS REPORT

k + γαστοπτα 4μm 6μm k + k +		DATION	method	limit/base	current	history1	history2
k	Acid Number (AN)	mg KOH/g	ASTM D974*		0.44		
	VISUAL		method	limit/base	current	history1	history2
k	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
Mar11/24	- FZI Silt Debris	scalar	Visual*	NONE	NONE		
Marl	-	scalar	Visual*	NONE	NONE		
Acid Number	Sand/Dirt	scalar	Visual*	NONE	NONE		
Τ	Appearance Odor	scalar	Visual* Visual*	NORML NORML	NORML NORML		
] + · · · · · · · · · · · · · · · · · ·	Emulsified Water	scalar scalar	Visual*	>0.05	NEG		
	Free Water	scalar	Visual*	20.00	NEG		
	FLUID PROPER		method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	inniboacc	44.9		
/24			method	limit/base	current	history1	history
Mar11/24	SAMPLE IMAG	ES	method	iiiiii/base	current	nistory i	history2
Viscosity @ 40°C	0.1						
Abnormal	Color					no image	no image
	Bottom					no image	no image
Abnormal							
	GRAPHS						
Marl 1/24	Ferrous Alloys			491,520	Particle Count		T
W	iron						
Particle Trend	E 5-			122,880	Severe		-2
Hamonna 4µm				30,720			-2
14μm	0			7,680	Abnormal		+1
	Mar11			Mar11/24 particles (per 1 m) 800 900'		`	-1
	Non-ferrous Met	als		-951 480	\'.		
	10 copper			ing 120			-1
	د الع			E 30	-		-1
5				8			
/lar11/24	-						
Mar11/24	5 2			24	1		N D
Marl 1,24	- Mar11/24			Mar11/24	-		
Mar11/24	Viscosity @ 40°	C		Mar11/24	μ 6μ Acid Number	14µ 21µ	38µ 71µ
Mar1 1/24	Viscosity @ 40°	C		4	Acid Number	14µ 21µ	38µ 71µ
Mart 1/24	Viscosity @ 40°	C		4 第0.60 20 20.40 20.40	Acid Number	14µ 21µ	38µ 71µ
Mar11/24	Viscosity @ 40°(0		4 第0.60 20 20.40 20.40	Acid Number	14μ 21μ	38µ 71µ
Mar11/24	Viscosity @ 40°(C		4 5H0,60 0,40 10,40 10,20	Acid Number	14µ 21µ	38µ 71µ
Mar11/24	Viscosity @ 40°0	C		4 第0.60 20 20.40 20.40	Acid Number	14µ 21µ	38µ 71µ

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