

OIL ANALYSIS REPORT



Machine Id DLM 1 Component Hydraulic System Fluid HOUGHTON HOUGHTO-SAFE 620 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

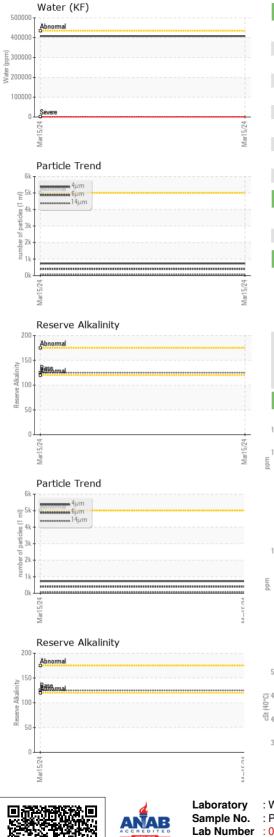
Fluid Condition

The pH level of this fluid is within the acceptable limits at 9.0. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005351		
Sample Date		Client Info		15 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	11		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm	ASTM D5185m	>20	0		
Tin	ppm	ASTM D5185m	>20	0		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		<1		
Calcium	ppm	ASTM D5185m		4		
Phosphorus	ppm	ASTM D5185m		4		
Zinc	ppm	ASTM D5185m		3		
Sulfur	ppm	ASTM D5185m		0		
CONTAMINANTS	8	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1		
Sodium	ppm	ASTM D5185m		5		
Potassium	ppm	ASTM D5185m	>20	2		
Water	%	ASTM D6304	>43.5	40.8		
ppm Water	ppm	ASTM D6304	>435000	408000		
FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	731		
Particles >6µm		ASTM D7647	>1300	398		
Particles >14µm		ASTM D7647	>160	68		
Particles >21µm		ASTM D7647	>40	23		
Particles >38µm		ASTM D7647	>10	4		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/16/13		



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	VISUAL White Metal Yellow Metal		method *Visual *Visual	limit/base NONE NONE	current NONE NONE	history1	history2		
	Precipitate		*Visual	NONE	NONE				
	Silt		*Visual	NONE	NONE				
	Debris		*Visual	NONE	NONE				
	Sand/Dirt		*Visual	NONE	NONE				
Mar15/24	Appearance	scalar	*Visual	NORML	NORML				
Mar	Odor		*Visual	NORML	NORML				
	Emulsified Water	scalar	*Visual	>43.5	0.2%				
	Free Water		*Visual		NEG				
	FLUID PROPER	TIES	method	limit/base	current	history1	history2		
	рН		ASTM D1287		9.00				
	Visc @ 40°C	cSt	ASTM D445		44.9				
	SAMPLE IMAGE	ES	method	limit/base	current	history1	history2		
Mar15/24	Color					no image	no image		
	Bottom					no image	no image		
	GRAPHS								
	Ferrous Alloys			491,520	Particle Count		T ²⁶		
Mar15/24 -	10 - iron			122,880			-24		
Marí	a nickel				Severe				
	5-			30,720	1.		-22		
	0			7,680 FZ	Abnormal		-20		
	Mar15/24			Mar15/24 s (per 1 ml	1		-18		
	Non-ferrous Meta	als		✓ sappita tita 480			-16		
	10 copper			Mar15/24 Mar15/24 056 (per 1 ml)		x	+20 +18 +16 +14		
	nessesses lead						12		
~	E 6- minimum tin			30			-12		
-1 E D V	2			8			-10		
9 1	5/24			5/24			-8		
	Mar1t			2 War15/24					
	Viscosity @ 40°C			4	وم Acid Number	14μ 21μ	38µ 71µ		
	50 Abnormal			(0,1.00) Wind Kong (0,00) (0,0					
	() 45 - () 45 - ⁽³⁾ 40 -			(mg Kt					
	40 Abnormal			a 0.00					
	35			V Ccid N					
2				15/24	5/24				
M1 C./2	Marl 5/24			Mar15/24	Mar15/24				
Laboratory Sample No. Lab Number	: PTK0005351 : <mark>06130690</mark>	Receiv Testec	Madison Ave., Cary, NC 27513 Received : 27 Mar 2024 Tested : 02 Apr 2024			POLAR MONTICELLO, M			
Unique Number Test Package			Diagnosed : 02 Apr 2024 - Jonathan Hester sts: KF, pH, ReserveAlk) ee at 1-800-237-1369.				US Contact: Service Manage		

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Contact/Location: Service Manager - POLMONMN