

OIL ANALYSIS REPORT

Sample Rating Trend



Area NWW GREENWOOD DT820 Component Front Differential

Fluid SHELL SPIRAX HD 75W90 (4 GAL)

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

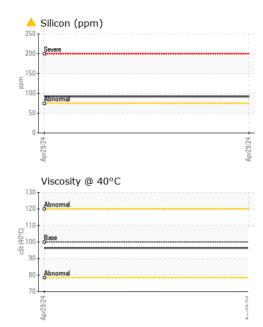
Fluid Condition

The condition of the oil is acceptable for the time in service.

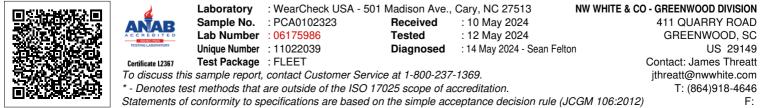
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0102323		
Sample Date		Client Info		29 Apr 2024		
Machine Age	mls	Client Info		111673		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
CONTAMINATIO	ON	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG		
WEAR METALS	3	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	118		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	5		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	<1		
Lead	ppm	ASTM D5185m	>25	0		
Copper	ppm	ASTM D5185m	>100	0		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		245		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		2		
Magnesium	ppm	ASTM D5185m		6		
Calcium	ppm	ASTM D5185m		30		
Phosphorus	ppm	ASTM D5185m		1366		
Zinc	ppm	107110				
Sulfur	1. 1	ASTM D5185m		13		
	ppm	ASTM D5185m ASTM D5185m		13 29124		
CONTAMINANT	ppm		limit/base			
CONTAMINANT Silicon	ppm	ASTM D5185m		29124		
	ppm TS	ASTM D5185m method		29124 current	 history1	
Silicon	ppm FS ppm	ASTM D5185m method ASTM D5185m	>75	29124 current 92	 history1	
Silicon Sodium	ppm FS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	>75	29124 current ▲ 92 2	 history1	
Silicon Sodium Potassium VISUAL White Metal	ppm FS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20	29124 current ▲ 92 2 <1	 history1 	 history2
Silicon Sodium Potassium VISUAL	ppm FS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>75 >20 limit/base	29124 <u>current</u> ▲ 92 2 <1 <u>current</u>	 history1 history1	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm FS ppm ppm ppm scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>75 >20 limit/base NONE	29124 current 92 2 <1 current NONE NONE NONE NONE	 history1 history1 	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm FS ppm ppm ppm scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE	29124 current 92 2 <1 current NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE	29124 current 92 2 <1 current NONE NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE	29124 current 92 2 <1 current NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m Method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE	29124 current 92 2 <1 current NONE NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE	29124 current 92 2 <1 current NONE NONE NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE	29124 current 92 2 <1 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2



OIL ANALYSIS REPORT



Visc @ 40°C	cSt	ASTM D445	100	96.4		
SAMPLE IMA	GES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS			L			
Ferrous Alloys						
iron chromium						
nickel						
)						
)+						
)						
Apr29/24			Apr29/24			
₹ Non-ferrous Met	als		A			
copper						
- tin						
7						
2 -						
3/2 f			9/24			
Apr29/24			Apr29/24			
Viscosity @ 40°	C					
Abnormal						
Base						
) -						
Abnormal						
			Apr29/24 +			
Apr29/24			12			



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Submitted By: James Threatt

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