

WEAR	
CONTAMINATION	
FLUID CONDITION	NORMAL

	[8-402591]
11 P-	752688
610	Brake Cooling System
	TDH FLUID SAE 70W80 (GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

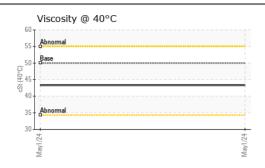
There is no indication of any contamination in the fluid.

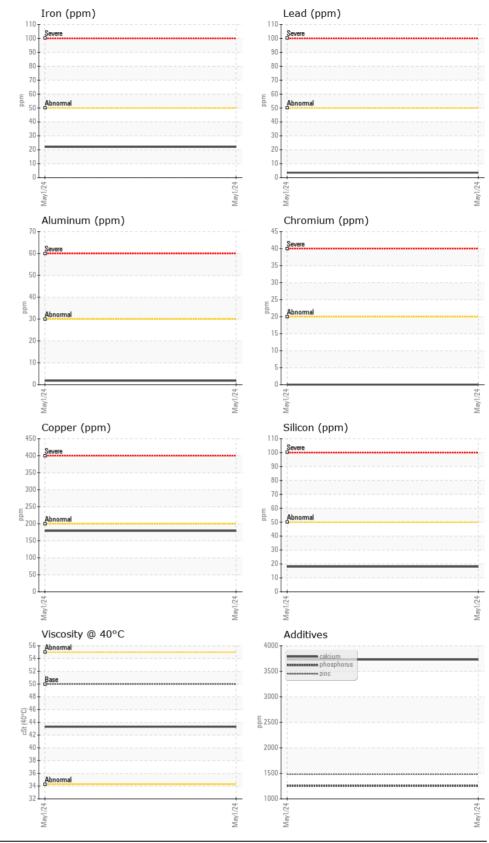
FLUID CONDITION

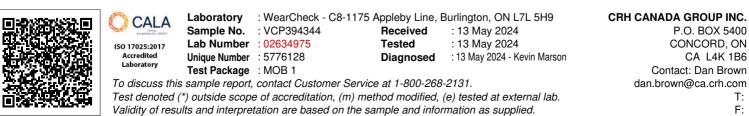
The condition of the fluid is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP394344		
Sample Date		Client Info		01 May 2024		
Machine Age	hrs	Client Info		1972		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185(m)	>50	22		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>30	2		
Lead	ppm	ASTM D5185(m)	>50	4		
Copper	ppm	ASTM D5185(m)	>200	179		
Tin	ppm	ASTM D5185(m)	>20	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Yellow Metal Silicon	scalar ppm	Visual* ASTM D5185(m)	NONE	NONE 18		
Silicon	ppm	ASTM D5185(m)	>50	18	 	
Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>50 >20	18 7	 	
Silicon Potassium Water	ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method	>50 >20 >0.2	18 7 NEG		
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>50 >20 >0.2 NONE	18 7 NEG NONE		
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual*	>50 >20 >0.2 NONE NONE	18 7 NEG NONE VLITE		
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual*	>50 >20 >0.2 NONE NONE NONE	18 7 NEG NONE VLITE NONE		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>50 >20 >0.2 NONE NONE NONE NORML	18 7 NEG NONE VLITE NONE NORML		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>50 >20 >0.2 NONE NONE NONE NORML NORML	18 7 NEG NONE VLITE NONE NORML NEG		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual*	>50 >20 >0.2 NONE NONE NORML NORML >0.2	18 7 NEG NONE VLITE NONE NORML NEG 3		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>50 >20 >0.2 NONE NORME NORML >0.2	18 7 NEG NONE VLITE NORML NORML NEG 3 108		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>50 >20 >0.2 NONE NONE NORML NORML >0.2	18 7 NEG NONE VLITE NORE NORML NORML NEG 3 108 4		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>50 >20 >0.2 NONE NORME NORML >0.2	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>50 >20 >0.2 NONE NONE NORML >0.2 10 10	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0 1		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>50 >20 >0.2 NONE NONE NORML >0.2 10 10 10	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0 1 1 7		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >50 >20 >0.2 NONE NORME NORML >0.2 10 10 100 3500 	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0 1 1 7 3729		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >50 >20 >0.2 NONE NORME NORML >0.2 10 10 100 3500 1150 	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0 1 1 7 3729 1255		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >50 >20 >0.2 NONE NORML >0.2 10 10 100 3500 1150 	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0 1 1 7 3729 1255 1483		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >50 >20 >0.2 NONE NORME NORML >0.2 10 10 100 3500 1150 	18 7 NEG NONE VLITE NORML NORML NEG 3 108 4 0 1 1 7 3729 1255		

Contact/Location: Dan Brown - HOLCON







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