

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id

## 24D1004 BAS-046

New (Unused) Oil

Gasoline Engine Oil (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
This is a baseline read-out on the submitted sample. ( Customer Sample Comment: RUN TBN )	Sample Number		Client Info		HPL006542		
	Sample Date		Client Info		11 Apr 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		
WEAR	Iron	ppm	ASTM D5185m		<1		
	Chromium	ppm	ASTM D5185m		0		
	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		9		
	Lead	ppm	ASTM D5185m		<1		
	Copper	ppm	ASTM D5185m		0		
	Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
				NONE			
CONTAMINATION	Silicon	ppm	ASTM D5185m		21		
CONTAMINATION	Silicon Potassium		ASTM D5185m ASTM D5185m		21 0		
CONTAMINATION	Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>20	21 0 NEG		
CONTAMINATION	Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>20 NONE	21 0 NEG NONE		  
CONTAMINATION	Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>20 NONE NONE	21 0 NEG NONE NONE	   	
CONTAMINATION	Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	>20 NONE NONE NONE	21 0 NEG NONE NONE NONE	   	
CONTAMINATION	Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 NONE NONE NORE	21 0 NEG NONE NONE NONE NORML	    	
CONTAMINATION	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>20 NONE NONE NONE	21 0 NEG NONE NONE NONE NORML NORML		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 NONE NONE NORE	21 0 NEG NONE NONE NONE NORML	    	
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>20 NONE NONE NORE	21 0 NEG NONE NONE NONE NORML NORML		
CONTAMINATION FLUID CONDITION	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109		
	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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4		
	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 D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4 1484		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4 1484 <1		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4 1484 <1 464		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4 1484 <1 464 1364		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4 1484 <1 464 1364 666		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NORML NEG 12 109 4 1484 <1 464 1364 666 781		
	Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Boron Barium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 NONE NONE NORE	21 0 NEG NONE NONE NORML NEG 12 109 4 1484 <1 464 1364 1364 666 781 17108		

Viscosity Index (VI) Scale ASTM D2270

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