

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id

24F1702 BATA-225

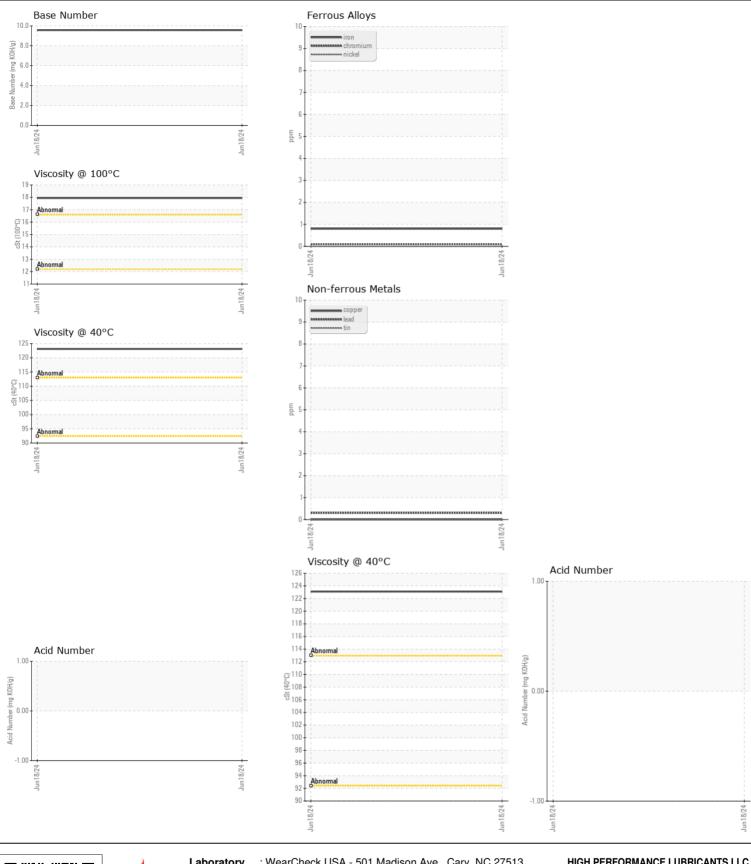
Component New (Unused) Oil

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 TEST)	Sample Number		Client Info		HPL0004744		
	Sample Date		Client Info		18 Jun 2024		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m		<1		
	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		4		
	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		
CONTAMINATION							
	Silicon	ppm	ASTM D5185m		11		
	Potassium	ppm	ASTM D5185m	>20	2		
	Water		WC Method	NONE	NEG		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar scalar	*Visual *Visual	NORML	NORML NEG		
		Scala	visuai				
FLUID CONDITION	Sodium	ppm	ASTM D5185m		0		
	Boron	ppm	ASTM D5185m		3		
	Barium	ppm	ASTM D5185m		2		
	Molybdenum	ppm	ASTM D5185m		938		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		29		
	Calcium	ppm	ASTM D5185m		3011		
	Phosphorus	ppm	ASTM D5185m		2428		
	Zinc	ppm	ASTM D5185m		2993		
	Sulfur	ppm	ASTM D5185m		21501		
	Base Number (BN)	mg KOH/g	ASTM D2896		9.57		
	Vian @ 1000	oCt	ASTM D445		123.1		
	Visc @ 40°C Visc @ 100°C	cSt cSt	ASTM D445 ASTM D445		17.94		

Viscosity Index (VI) Scale ASTM D2270

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HIGH PERFORMANCE LUBRICANTS LLC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 500 S SPRUCE ST : HPL0004744 : 25 Jun 2024 Lab Number : 06220252 MANTENO, IL Tested : 27 Jun 2024 : 27 Jun 2024 - Jonathan Hester US 60950 Unique Number : 11098449 Diagnosed Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI) Contact: DAVID WARD Certificate L2367 sampledata@hplubricants.com To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (815)468-3535 F: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)