

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id

24E2206 PCMO-840

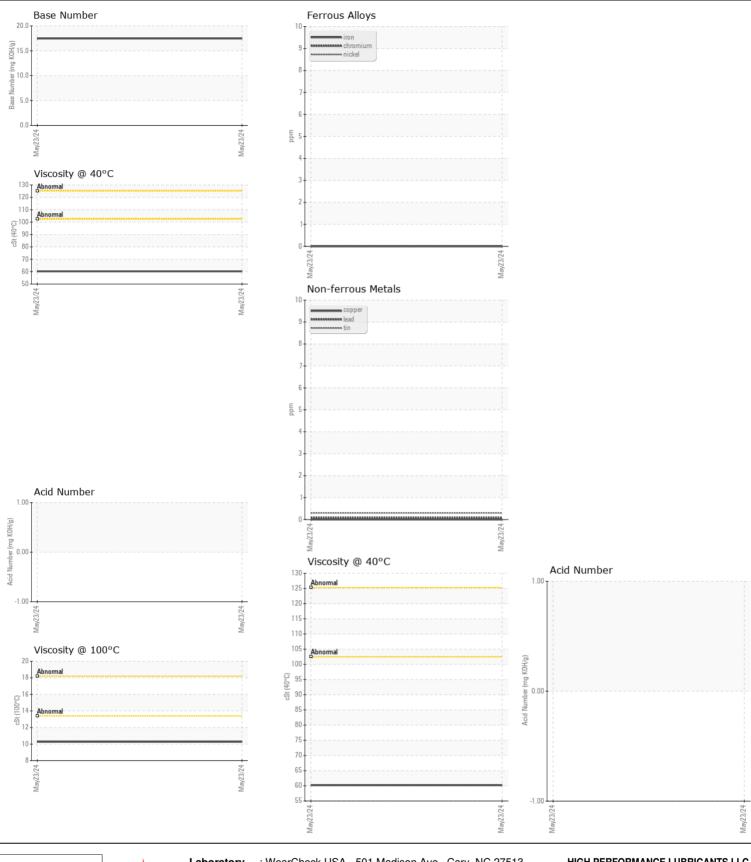
New (Unused) Oil

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		HPL0004355		
	Sample Date		Client Info		23 May 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		0		
	Chromium	ppm	ASTM D5185m		0		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		8		
	Lead	ppm	ASTM D5185m		<1		
	Copper	ppm	ASTM D5185m		0		
	Tin	ppm	ASTM D5185m		<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	nnm	ASTM D5185m		15		
	Potassium	ppm ppm	ASTM D5185m	> 20	2		
	Water	ррп	WC Method	220	NEG		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual		NEG		
FLUID CONDITION	Sodium		ASTM D5185m		.1		
BN confirmed.	Boron	ppm ppm	ASTM D5185m		<1 17		
	Barium		ASTM D5185m		<1		
	Molybdenum	ppm ppm	ASTM D5185m		532		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		1962		
	Calcium	ppm	ASTM D5185m		1098		
	Phosphorus	ppm	ASTM D5185m		684		
	Zinc	ppm	ASTM D5185m		774		
	Sulfur	ppm	ASTM D5185m		7366		
	Base Number (BN)		ASTM D2896		17.46		
	Visc @ 40°C	cSt	ASTM D445		60.19		
	Visc @ 100°C	cSt	ASTM D445		10.27		
		501	. 10 111 0 110				

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 : HPL0004355 : 28 May 2024 Lab Number : 06192680 MANTENO, IL Tested : 04 Jun 2024 : 04 Jun 2024 - Doug Bogart US 60950 Unique Number : 11049432 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)