



OIL REPORT

LAB NUMBER: Q86416

UNIT ID: 22 MAVERICK

REPORT DATE: 3/21/2023

CLIENT ID: 188276

CODE: 20/1,430

PAYMENT: CC: MC

UNIT	MAKE/MODEL: Ford 2.5L 4-cyl Hybrid (Atkinson)	OIL TYPE & GRADE: Gasoline Engine Oil
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 6,183 Miles
	ADDITIONAL INFO:	

CLIENT	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]

COMMENTS SAM: Amended to add TBN, which was fine at 3.6. The universal averages show typical wear levels for this engine type after ~10,200 miles on the oil, but that's after all the wear-in stuff has washed out. This sample tested high in the things that we expect to read high in a wear-in sample -- the metals read high due to wear-in, and silicon is from sealers. Look for these things to improve as the engine matures through the next few oil changes. We found fuel dilution at 1.8% of the sample, which is typically not associated with a problem, since it's usually just operational.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	6,183	UNIT / LOCATION AVERAGES					UNIVERSAL AVERAGES
	MI/HR on Unit	6,183						
	Sample Date	3/7/2023						
	Make Up Oil Added	0 qts						
	ALUMINUM	15	15					4
	CHROMIUM	0	0					0
	IRON	15	15					9
	COPPER	65	65					2
	LEAD	1	1					0
	TIN	1	1					0
	MOLYBDENUM	160	160					62
	NICKEL	0	0					0
	MANGANESE	2	2					0
	SILVER	0	0					0
	TITANIUM	0	0					4
	POTASSIUM	3	3					1
	BORON	99	99					48
	SILICON	84	84					12
	SODIUM	11	11					73
	CALCIUM	1516	1516					1506
	MAGNESIUM	462	462					405
	PHOSPHORUS	797	797					676
	ZINC	866	866					777
	BARIUM	11	11					1

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	47.8				
	cSt Viscosity @ 100°C	6.59				
	Flashpoint in °F	350	>385			
	Fuel %	1.8	<2.0			
	Antifreeze %	0.0	0.0			
	Water %	0.0	0.0			
	Insolubles %	0.2	<0.6			
	TBN	3.6	>1.0			
	TAN					
	ISO Code					

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 www.blackstone-labs.com