



OIL REPORT

LAB NUMBER: M69415
 REPORT DATE: 10/6/2020
 CODE: 44/698

UNIT ID: 16 MAZDA3
 CLIENT ID: 108903
 PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Mazda 2.0L 4-cyl SkyActiv	OIL TYPE & GRADE: Idemitsu Zepro 0W/20
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 12,218 Miles
	ADDITIONAL INFO:	

CLIENT	ZACHARY LEE ANDREWS	PHONE: (252) 217-4379
	3045 RAY TURNER RD	FAX:
	OAK CITY, NC 27857-9527	ALT PHONE:
		EMAIL: zcrafish@gmail.com

COMMENTS
 ZACHARY: We calculated 12,218 miles on the oil based on elapsed mileage, but let us know if that's not right. The biggest change brought about by the shorter run was lower iron, which is pretty typical. A lot more components are made from steel than any other metal, so that iron tends to track closest with oil use. But on a ppm/mile basis iron is still on the low side, showing improved steel wear. Other metals show nice even wear too. 1.5% fuel isn't a problem, and likely relates to idling/stop and go traffic. The TBN shows enough active additive to try 16K miles again.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	12,218	UNIT / LOCATION AVERAGES	16,677	13,713	11,702		7,506	UNIVERSAL AVERAGES
	MI/HR on Unit	71,314		59,096	42,419	28,706	17,004	7,506	
	Sample Date	9/23/2020		3/27/2020	7/1/2019	8/7/2018	11/27/2017	5/8/2017	
	Make Up Oil Added	0 qts		0 qts	0 qts	0 qts	0 qts	0 qts	
ALUMINUM	7	11	9	8	10	11	28	4	
CHROMIUM	1	1	2	2	1	1	1	0	
IRON	23	29	42	30	30	22	30	10	
COPPER	2	4	2	3	4	11	40	3	
LEAD	0	0	0	0	0	0	0	0	
TIN	0	0	0	0	1	1	1	0	
MOLYBDENUM	675	675	666	623	692	721	644	153	
NICKEL	0	0	1	0	0	0	0	0	
MANGANESE	1	1	1	1	1	2	6	1	
SILVER	0	0	0	0	0	0	0	0	
TITANIUM	0	0	1	1	0	0	0	5	
POTASSIUM	0	2	2	3	2	2	5	2	
BORON	145	141	121	127	147	165	184	80	
SILICON	16	19	18	17	17	29	77	12	
SODIUM	6	8	10	8	9	6	9	26	
CALCIUM	2149	2165	2175	2067	2201	2235	1950	1593	
MAGNESIUM	13	12	14	10	14	11	10	423	
PHOSPHORUS	703	708	716	661	741	721	677	659	
ZINC	762	796	824	737	831	825	732	750	
BARIUM	0	1	1	1	1	3	11	0	

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	49.5	46-57	48.8	51.2	50.8	48.4	47.5
	cSt Viscosity @ 100°C	7.13	6.0-9.7	6.89	7.65	7.50	6.77	6.50
	Flashpoint in °F	355	>385	350	365	380	385	390
	Fuel %	1.5	<2.0	1.8	1.0	TR	TR	<0.5
	Antifreeze %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Water %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.3	<0.6	0.3	0.2	0.3	0.3	0.3
	TBN	2.5	>1.0	1.8	2.5	2.8	3.3	3.1
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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