



OIL REPORT

LAB NUMBER: N19029

UNIT ID: 06 MINI COOPER S

REPORT DATE: 3/12/2021

CLIENT ID: 72301

CODE: 20/68

PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Cooper, Mini 1.6L 4-cyl Supercharged	OIL TYPE & GRADE: Shell Rotella T6 5W/40
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 7,374 Miles
	ADDITIONAL INFO:	

CLIENT	
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COMMENTS With the exception of a slightly low viscosity (which isn't troublesome to begin with), this is a clean report. Since 5W/30 was in use previously, carryover might have thinned this 5W/40 down a little and that's fine; the oil worked well. Copper and lead are stable and these levels translate to healthy brass/bronze wear. It's interesting that iron didn't drop despite a shorter run (of the metals iron tracks closely with the miles), but this level is still nothing excessive for mileage on the oil. Maybe more idling or short trips kept iron from dropping? Another 12k-mile run should be fine.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	7,374	UNIT / LOCATION AVERAGES	12,000	4,000				UNIVERSAL AVERAGES
	MI/HR on Unit	145,884		138,510	128,000				
	Sample Date	2/26/2021		3/1/2020	6/23/2019				
	Make Up Oil Added	1 qt		1.5 qts	0 qts				
ALUMINUM	4	4	4	4				3	
CHROMIUM	1	1	1	1				1	
IRON	23	24	22	28				15	
COPPER	9	17	9	32				8	
LEAD	3	4	4	6				3	
TIN	1	1	0	1				1	
MOLYBDENUM	77	69	68	61				91	
NICKEL	1	1	1	2				1	
MANGANESE	1	2	1	5				2	
SILVER	0	0	0	0				0	
TITANIUM	0	0	0	0				1	
POTASSIUM	2	1	0	2				2	
BORON	46	50	49	55				60	
SILICON	6	7	7	9				6	
SODIUM	7	17	10	35				22	
CALCIUM	1033	1556	1273	2362				2158	
MAGNESIUM	699	479	620	119				254	
PHOSPHORUS	659	741	751	814				791	
ZINC	754	866	869	976				929	
BARIUM	0	0	0	0				0	

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	59.8	65-78	61.2	62.9			
	cSt Viscosity @ 100°C	10.16	11.6-15.3	10.55	11.02			
	Flashpoint in °F	400	>375	395	385			
	Fuel %	<0.5	<2.0	<0.5	<0.5			
	Antifreeze %	0.0	0.0	0.0	0.0			
	Water %	0.0	0.0	0.0	0.0			
	Insolubles %	0.3	<0.6	0.2	0.2			
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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