

## OIL REPORT

LAB NUMBER: K48279

UNIT ID: 07 MINI **CLIENT ID:** 

**REPORT DATE:** 8/27/2018

**CODE**: 20/32 PAYMENT: CC: Visa

MAKE/MODEL: Cooper, Mini 1.6L 4-cyl

**FUEL TYPE:** Gasoline (Unleaded)

OIL TYPE & GRADE: OIL USE INTERVAL:

Castrol Synthetic 5W/30 5,820 Miles

ADDITIONAL INFO:

PHONE: FAX:

ALT PHONE: EMAIL:

MARK: Thanks for the notes. Despite your suspicions, we didn't find any coolant in this sample, or any contamination at all. Coolant shows up as high potassium and sodium and neither is present at a significant level. Wear metals are in line with universal averages, so no mechanical issues stand out either. The extra titanium is just an additive in this oil, not a poorly wearing part. No fuel or water showed up and the viscosity read in the 5W/30 range. Air and oil filtration is fine with silicon at 7 ppm and insolubles at 0.3%. Check back after repairs to make sure everything went well.

	MI/HR on Oil	5,820		7,432		
	MI/HR on Unit	127,022	LUCATION	121,202		LINIVEDEAL
	Sample Date	8/14/2018		12/1/2017		UNIVERSAL AVERAGES
						AVERAGES
	Make Up Oil Added	1 qt		2 qts		
Z	A					
$\overline{c}$	ALUMINUM	8	9	10	 <b>I</b>	5
	CHROMIUM	0	0	0		1
MILLI	IRON	20	21	22		26
	COPPER	4	5	5		11
R	LEAD	0	0	0		1
Д	TIN	0	0	0		1
3	MOLYBDENUM	88	89	89		111
R	NICKEL	1	1	1		1
ΡA	MANGANESE	1	1	1		3
Z	SILVER	0	0	0		0
S	TITANIUM	22	16	10		1
	POTASSIUM	0	0	0		2
	BORON	233	207	181		61
EΜ	SILICON	7	8	8		8
H	SODIUM	5	5	5		18
ш	CALCIUM	2260	2270	2279		2325
	MAGNESIUM	19	19	19		157
	PHOSPHORUS	804	805	806		792
	ZINC	876	891	906		935
	BARIUM	0	0	0		0

Values

Should Be\*

SUS Viscosity @ 210°F	57.7	56-63	59.2		
cSt Viscosity @ 100°C	9.56	9.1-11.3	9.99		
Flashpoint in °F	425	>375	405		
Fuel %	<0.5	<2.0	<0.5		
Antifreeze %	0.0	0.0	0.0		
Water %	0.0	<0.1	0.0		
Insolubles %	0.3	<0.6	0.3		
TBN			3.0		
TAN					
ISO Code					

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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