



# OIL REPORT

LAB NUMBER:  
 REPORT DATE: 3/17/2011  
 CODE: 63/75

UNIT ID: 03 COOPER S  
 CLIENT ID:  
 PAYMENT: Prepaid

<b>UNIT</b>	MAKE/MODEL: Cooper, Mini 1.6L 4-cyl Supercharged	OIL TYPE & GRADE: Royal Purple 5W/30
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 25,000 Miles
	ADDITIONAL INFO:	

<b>CLIENT</b>	NIK	PHONE:
		FAX:
		ALT PHONE:
		EMAIL:

**COMMENTS** NIK: 25K miles a long oil run, but this engine handled it pretty well. Universal averages show typical wear levels for this type of engine after about 5,900 miles on the oil. Only aluminum and copper were higher than average. Aluminum is from the pistons and copper is from brass/bronze parts. It's certainly possible that these metals are from the long oil run, so we're not calling them a problem just yet. The viscosity was normal for 5W/30 and no fuel or coolant was found. Low insolubles and silicon show good oil and air filtration. Check back in ~20,000 miles to monitor.

<b>ELEMENTS IN PARTS PER MILLION</b>	MI/HR on Oil	25,000	<b>UNIT / LOCATION AVERAGES</b>					<b>UNIVERSAL AVERAGES</b>
	MI/HR on Unit	251,136						
	Sample Date	03/01/11						
	Make Up Oil Added	1.5 qts						
ALUMINUM	6	6					3	
CHROMIUM	2	2					1	
IRON	28	28					16	
COPPER	20	20					9	
LEAD	2	2					3	
TIN	0	0					1	
MOLYBDENUM	146	146					108	
NICKEL	3	3					1	
MANGANESE	1	1					2	
SILVER	1	1					0	
TITANIUM	0	0					0	
POTASSIUM	7	7					2	
BORON	11	11					45	
SILICON	9	9					5	
SODIUM	52	52					7	
CALCIUM	2468	2468					2449	
MAGNESIUM	1162	1162					113	
PHOSPHORUS	916	916					766	
ZINC	969	969					929	
BARIUM	0	0					0	

Values Should Be\*

<b>PROPERTIES</b>	SUS Viscosity @ 210°F	61.5	54-61				
	cSt Viscosity @ 100°C	10.65	8.5-10.8				
Flashpoint in °F	415	>365					
Fuel %	<0.5	<2.0					
Antifreeze %	0.0	0					
Water %	0.0	<0.1					
Insolubles %	0.3	<0.6					
TBN							
TAN							
ISO Code							

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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