



# OIL REPORT

LAB NUMBER: E33593  
REPORT DATE: 11/5/2010  
CODE: 44/75

UNIT ID: BMW S54  
CLIENT ID: 30388  
PAYMENT: CC: Visa

UNIT	MAKE/MODEL: BMW 3.2L (S-54) Inline 6 Cylinder	OIL TYPE & GRADE: Castrol TWS 10W/60
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 4,006 Miles
	ADDITIONAL INFO: 2007 - Runs this car at High-Performance Driving Schools At Times.	

CLIENT	JAMES S. MILLET	PHONE: (206) 542-5237
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	SHORELINE, WA 98133	ALT PHONE:
		EMAIL: JSMILLET@gmail.com

COMMENTS	JAMES: Some of these S54 motors that we see don't look too good, but this one is obviously loved and well cared for. You really couldn't ask for better wear trends than these since they show an engine is doing well mechanically. The only thing keeping this from being a perfect report is a trace of fuel, but that's hardly anything to lose sleep over. Low insolubles and silicon show good oil and air filtration, and the viscosity was fine for 10W/60. Another good report at 30,118 miles.
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ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	4,006	UNIT / LOCATION AVERAGES	4,533	4,147	4,346	3,925	3,873	UNIVERSAL AVERAGES
	MI/HR on Unit	30,118		26,112	21,579	17,432	13,086	9,161	
	Sample Date	10/27/10		04/11/10	09/22/09	05/27/09	10/28/08	07/30/08	
	Make Up Oil Added	0 qts		0 qts	0 qts	0 qts	0 qts	0 qts	
	ALUMINUM	5	5	4	4	4	4	5	5
	CHROMIUM	0	0	0	0	0	0	0	0
	IRON	9	11	8	7	8	10	13	10
	COPPER	5	5	4	4	4	4	6	8
	LEAD	0	2	3	2	2	1	2	4
	TIN	0	0	0	0	0	0	0	1
	MOLYBDENUM	3	3	1	3	3	3	6	19
	NICKEL	0	1	1	1	0	1	1	1
	MANGANESE	1	1	1	1	1	1	1	2
	SILVER	0	0	0	0	0	0	0	0
	TITANIUM	0	0	0	0	0	0	0	0
	POTASSIUM	2	2	2	2	1	1	1	2
	BORON	104	110	112	94	102	119	116	90
	SILICON	4	4	4	4	4	4	5	5
	SODIUM	27	17	19	28	25	7	7	5
	CALCIUM	1470	1525	1705	1553	1461	1503	1389	1667
	MAGNESIUM	559	605	637	592	564	610	574	519
	PHOSPHORUS	818	850	922	848	784	852	847	825
	ZINC	998	1048	1247	1017	1012	1020	1016	1002
	BARIUM	0	0	0	0	0	0	0	0

Values  
Should Be\*

PROPERTIES	SUS Viscosity @ 210°F	86.2	85-110	87.8	90.1	90.0	90.2	87.2
	cSt Viscosity @ 100°C	17.06	16.8-22.9	17.45	18.01	17.97	18.04	17.29
	Flashpoint in °F	370	>375	400	425	380	385	385
	Fuel %	TR	<2.0	<0.5	<0.5	<0.5	<0.5	<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 %	TR	<0.6	TR	0.1	0.1	0.2	0.2
	TBN							
	TAN							
	ISO Code							

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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