OIL REPORT

LAB NUMBER: F78843 **UNIT ID:** 11 M3
REPORT DATE: 10/15/2013 **CLIENT ID:** 67347
CODE: 63/75 **PAYMENT:** CC: Visa

UNIT

MAKE/MODEL: BMW 4.0L (S65) V-8
FUEL TYPE: Gasoline (Unleaded)
ADDITIONAL INFO:
OIL TYPE & GRADE: Castrol TWS 10W/60
OIL USE INTERVAL: 8,000 Miles

CLIENT

RUSS VASTANO
333 JUNIPER BEND CIRCLE
GREENVILLE, SC 29615
PHONE:
FAX:
ALT PHONE:
EMAIL: arvastano@gmail.com

COMMENTS

RUSS: The only metal that's cautionary in this first report from the 4.0L in your BMW is lead. Lead generally shows bearing wear, and we're not calling it a problem after only one sample, but it's certainly worth monitoring. The other wear metals look great, so maybe there's a reasonable explanation for it, like racing gas or an additive. We'll know more next time when we can see if it's going up or down. Universal averages show typical wear for the S65 engine after 5,700 miles on the oil. Low insolubles and silicon show good oil and air filtration. Check back in 7,500 miles.

ELEMENTS IN PARTS PER MILLION

		UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
MI/HR on Oil	8,000							
MI/HR on Unit	55,897							
Sample Date	09/29/13							
Make Up Oil Added	1 qt							
ALUMINUM	6	6						5
CHROMIUM	0	0						0
IRON	12	12						8
COPPER	5	5						4
LEAD	**28**	28						8
TIN	1	1						1
MOLYBDENUM	108	108						57
NICKEL	0	0						1
MANGANESE	1	1						1
SILVER	0	0						0
TITANIUM	23	23						7
POTASSIUM	1	1						2
BORON	33	33						73
SILICON	4	4						4
SODIUM	5	5						6
CALCIUM	2281	2281						2005
MAGNESIUM	336	336						458
PHOSPHORUS	852	852						860
ZINC	994	994						1019
BARIUM	0	0						0

PROPERTIES

		Values Should Be*					
SUS Viscosity @ 210°F	87.3	85-110					
cSt Viscosity @ 100°C	17.33	16.8-22.9					
Flashpoint in °F	400	>375					
Fuel %	<0.5	<2.0					
Antifreeze %	0.0	0.0					
Water %	0.0	0.0					
Insolubles %	0.3	<0.6					
TBN							
TAN							
ISO Code							

*** THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE**

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 www.blackstone-labs.com

©COPYRIGHT BLACKSTONE LABORATORIES 2012 LIABILITY LIMITED TO COST OF ANALYSIS