



OIL REPORT

LAB NUMBER: F90730
 REPORT DATE: 1/3/2014
 CODE: 63/501

UNIT ID: 02 GOLF TDI
 CLIENT ID: [REDACTED]
 PAYMENT: Prepaid

UNIT	MAKE/MODEL: Volkswagen 1.9L Turbo (TDI)	OIL TYPE & GRADE: Synthetic 5W/40
	FUEL TYPE: Diesel	OIL USE INTERVAL: 10,107 Miles
	ADDITIONAL INFO:	

CLIENT	CASEY FRIDAY	PHONE:
	[REDACTED]	FAX:
		ALT PHONE:
		EMAIL: casey@caseyfriday.com

COMMENTS TODD: Universal averages for this type of engine are based on about 8,300 miles on the oil. The only element reading out of line was lead, at 9 ppm. Lead is from the bearings, so it's possible there's some abnormal bearing wear going on in this engine. Or, the lead could just be from a temporary particle streak. We'll keep a close eye on that. If it is a particle streak, lead should read closer to average next time. 0.5% fuel present in the oil isn't a problem, and the TBN at 2.6 shows plenty of active additive left. Stick with 10,000 miles again and check back on lead.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	10,107	UNIT / LOCATION AVERAGES					UNIVERSAL AVERAGES
	MI/HR on Unit	173,276						
	Sample Date	12/28/13						
	Make Up Oil Added							
	ALUMINUM	4	4					5
	CHROMIUM	1	1					2
	IRON	34	34					39
	COPPER	4	4					3
	LEAD	9	9					2
	TIN	0	0					1
	MOLYBDENUM	1	1					23
	NICKEL	1	1					1
	MANGANESE	0	0					1
	SILVER	0	0					0
	TITANIUM	0	0					0
	POTASSIUM	0	0					4
	BORON	46	46					34
	SILICON	2	2					5
	SODIUM	2	2					7
	CALCIUM	1810	1810					2020
	MAGNESIUM	12	12					360
	PHOSPHORUS	713	713					954
	ZINC	776	776					1130
	BARIUM	0	0					0

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	68.4	65-76				
	cSt Viscosity @ 100°C	12.54	11.6-14.8				
	Flashpoint in °F	405	>410				
	Fuel %	0.5	<2.0				
	Antifreeze %	0.0	0.0				
	Water %	0.0	<0.1				
	Insolubles %	0.3	<0.6				
	TBN	2.6	>1.0				
	TAN						
	ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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