



OIL REPORT

LAB NUMBER:
 REPORT DATE: 4/1/2019
 CODE: 63/32

UNIT ID: 02 A6
 CLIENT ID:
 PAYMENT: Prepaid

UNIT	MAKE/MODEL: Audi 4.2L V-8	OIL TYPE & GRADE: Valvoline 10W/30
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 6,000 Miles
	ADDITIONAL INFO:	

CLIENT	:
	:
	:
	:
	:

COMMENTS You used Restore this time and you can see that in the significant copper and lead amounts present. That's fine, but it does mean that we're not going to get a good look at bearing and brass/bronze wear until that washes out. The engine is consuming 1 quart over 1,500 miles and that does seem a bit excessive. Of course, some engines do start using a bit more oil as they get miles on them and that's sometimes not a problem. The wear that we can see (aluminum, chrome and iron) looks just fine. Fuel dilution isn't excessive. Check back in 5,000-6,000 miles.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	6,000	UNIT / LOCATION AVERAGES	5,000	3,000	6,000	5,000	UNIVERSAL AVERAGES
	MI/HR on Unit	214,000		178,000	149,000	135,000	108,000	
	Sample Date	3/22/2019		8/1/2016	6/7/2014	7/5/2013	3/15/2011	
	Make Up Oil Added	3 qts		2 qts	0 qts	1 qt	0.5 qt	
	ALUMINUM	4	4	2	3	6	4	4
	CHROMIUM	0	0	0	0	0	0	0
	IRON	10	11	9	5	15	14	10
	COPPER	657	134	2	2	4	4	6
	LEAD	728	148	1	2	2	5	1
	TIN	1	1	0	0	0	3	1
	MOLYBDENUM	24	33	1	51	62	28	47
	NICKEL	0	0	0	0	0	0	0
	MANGANESE	0	0	0	0	0	0	1
	SILVER	0	0	0	0	0	0	0
	TITANIUM	1	0	0	0	0	0	1
	POTASSIUM	2	2	3	0	0	3	2
	BORON	3	14	2	46	7	12	60
	SILICON	17	11	13	5	15	5	10
	SODIUM	58	107	249	5	46	176	16
	CALCIUM	1245	1661	1939	1145	2071	1903	2298
	MAGNESIUM	613	235	22	464	53	23	214
	PHOSPHORUS	713	639	607	615	686	572	834
	ZINC	797	759	737	701	791	770	971
	BARIIUM	0	0	0	0	0	0	0

Values Should Be*

PROPERTIES	61.2	58-65	73.1	59.1	57.9	55.5
SUS Viscosity @ 210°	61.2	58-65	73.1	59.1	57.9	55.5
cSt Viscosity @ 100°C	10.56	9.7-11.9	13.76	9.97	9.62	8.92
Flashpoint in °F	360	>385	370	420	415	335
Fuel %	1.3	<2.0	TR	<0.5	<0.5	1.5
Antifreeze %	0.0	0.0	0.0	0.0	0.0	?
Water %	0.0	0.0	0.0	0.0	0.0	0.0
Insolubles %	0.2	<0.6	0.2	0.2	0.2	0.3
TBN						
TAN						
ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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