



OIL REPORT

LAB NUMBER: K84265

UNIT ID: 02 911 C4S

REPORT DATE: 1/10/2019

CLIENT ID: 69533

CODE: 107/685

PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Porsche 3.6L H-6	OIL TYPE & GRADE: Quaker State Ultimate Durability Syn
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 3,923 Miles
	ADDITIONAL INFO:	

CLIENT	WAYNE JANG	PHONE: (203) 395-0965
	415 RIVER ROAD	FAX:
	HAMDEN, CT 06518	ALT PHONE:
		EMAIL: waynejang@hotmail.com

COMMENTS WAYNE: Aluminum is back in line this time. 4 ppm is the average amount of aluminum we find from this type of engine so we aren't too concerned, but the fact that it isn't as steady as it could be causes pause. We'll continue to monitor it from our end and hopefully it stays around this level. Other metals look great and don't show any obvious issues for your Porsche. The air filter did a good job with airborne dirt (see silicon) and the oil filter kept oxidized solids in check (see insolubles). The TBN was strong at 5.0 - lots of active additive left. Try 5K miles again if you'd like.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	3,923	UNIT / LOCATION AVERAGES	3,692	2,659	4,673	2,935	2,231	UNIVERSAL AVERAGES
	MI/HR on Unit	88,744		84,821	81,129	75,073	70,400	67,111	
	Sample Date	12/26/2018		8/10/2018	5/7/2018	9/22/2017	5/25/2017	3/21/2017	
	Make Up Oil Added	2.75 qts		2 qts	2 qts	3 qts	2 qts	1 qt	
ALUMINUM	4	10	13	9	7	6	17	4	
CHROMIUM	0	0	0	0	0	0	1	1	
IRON	6	9	7	7	6	7	9	10	
COPPER	3	3	2	2	3	2	2	7	
LEAD	0	0	0	0	0	0	0	3	
TIN	0	1	0	0	0	0	0	1	
MOLYBDENUM	484	250	284	716	245	385	7	81	
NICKEL	0	0	0	0	0	0	0	0	
MANGANESE	0	3	0	0	1	1	2	1	
SILVER	0	0	0	0	0	0	0	0	
TITANIUM	0	2	0	0	0	0	1	1	
POTASSIUM	1	1	1	2	0	1	1	3	
BORON	297	187	254	362	57	423	58	115	
SILICON	6	8	8	13	5	8	8	7	
SODIUM	5	7	6	13	6	5	4	10	
CALCIUM	2415	2769	2655	2714	2558	2831	2533	2547	
MAGNESIUM	10	51	11	8	11	18	21	112	
PHOSPHORUS	800	962	979	1111	902	964	898	909	
ZINC	921	1111	1135	1229	994	1130	1026	1040	
BARIUM	0	0	0	0	0	0	0	0	

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	77.7	66-89	73.1	89.2	75.5	69.2	69.7
	cSt Viscosity @ 100°C	14.95	11.9-18.0	13.76	17.78	14.39	12.73	12.87
	Flashpoint in °F	415	>385	415	445	440	405	405
	Fuel %	<0.5	<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 %	0.3	<0.6	0.2	0.2	0.1	0.3	0.1
	TBN	5.0	>1.0	6.3		5.6	6.5	6.6
	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