OIL REPORT

LAB NUMBER: **UNIT ID:**
REPORT DATE: 3/1/2019 **CLIENT ID:**
CODE: 20/32 **PAYMENT:**

UNIT

EQUIP. MAKE/MODEL: BMW 4.0L (S65B40) V-8 OIL TYPE & GRADE: 15W/50
FUEL TYPE: Gasoline (Unleaded) OIL USE INTERVAL: 2,500 Miles
ADDITIONAL INFO: New Rod Bearings @47K miles, supercharged @61K miles

CLIENT

PHONE:
FAX:
ALT PHONE:
EMAIL:

COMMENTS

We're betting this supercharged M3 sees some pretty hard use, but, if that's the case, it's not apparent in the used oil analysis. Wear metals are in the single digits across the board. Aluminum and iron are a tad lower than last time, partly due to the shorter run and that's just fine. Short runs certainly won't hurt anything. There's no fuel or coolant to worry about the viscosity is fine for 15W/50. Silicon from sealers used to install the supercharger have washed out and the air filter is working well. You could go back to 4,500 miles on the oil if you want.

ELEMENTS IN PARTS PER MILLION

MI/HR on Oil	2,500	UNIT / LOCATION AVERAGES	4,500	3,200	6,500	4,900		UNIVERSAL AVERAGES
MI/HR on Unit	74,302		72,147	68,400	65,291	50,750		
Sample Date	2/21/2019		9/7/2018	12/28/2017	5/8/2017	4/28/2015		
Make Up Oil Added	0 qts		0 qts	0.5 qts		0 qts		
ALUMINUM	3	4	6	5	4	3		4
CHROMIUM	0	0	0	0	0	0		0
IRON	3	4	4	5	6	4		7
COPPER	2	2	2	2	2	1		2
LEAD	0	1	1	1	1	2		8
TIN	0	0	0	1	1	0		1
MOLYBDENUM	116	117	111	124	112	120		111
NICKEL	0	0	0	0	0	0		0
MANGANESE	1	3	1	3	7	1		1
SILVER	0	0	0	0	0	0		0
TITANIUM	0	0	0	0	0	2		15
POTASSIUM	0	1	2	1	0	2		2
BORON	40	35	33	40	26	37		51
SILICON	7	9	6	**9**	**15**	8		4
SODIUM	4	4	4	4	5	3		7
CALCIUM	3788	3528	3285	3462	3438	3668		2541
MAGNESIUM	15	17	13	16	15	25		76
PHOSPHORUS	1211	1142	1098	1233	1004	1165		846
ZINC	1338	1268	1176	1368	1159	1301		981
BARIUM	0	0	0	0	0	0		0

PROPERTIES

		Values Should Be*					
SUS Viscosity @ 210°F	83.2	70-86	83.6	84.2	83.0	82.2	
cSt Viscosity @ 100°C	16.33	13.0-17.3	16.42	16.57	16.28	16.08	
Flashpoint in °F	410	>390	**365**	410	430	**375**	
Fuel %	<0.5	<2.0	1.3	<0.5	<0.5	1.5	
Antifreeze %	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	
Insolubles %	TR	<0.6	0.2	0.1	TR	0.1	
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