



# OIL REPORT

LAB NUMBER:  
 REPORT DATE: 4/2/2019  
 CODE: 20/685

UNIT ID: 2015 CASCADIA  
 CLIENT ID:  
 PAYMENT: CC: Visa

<b>UNIT</b>	MAKE/MODEL: Detroit DD15	OIL TYPE & GRADE: Mobil Delvac 15W/40
	FUEL TYPE: Diesel	OIL USE INTERVAL: 9,000 Miles
	ADDITIONAL INFO: Freightliner	

<b>CLIENT</b>	
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**COMMENTS** Thanks for the note about using Lucas. That additive will harmlessly thicken the oil, so no worries on that front. There aren't any harmful contaminants in the sample, soot levels are low, and the 6.3 TBN shows lots of active additive remaining in the oil. 1.0 or less is considered low. Wear metals are low next to averages, which is good because those averages are based on oil run ~28,800 miles. We don't see any trouble in these results, so try 20,000 miles next. (P.S. We're guessing 43 quarts is the sump capacity, not actual make-up oil needed during the oil change.)

<b>ELEMENTS IN PARTS PER MILLION</b>	MI/HR on Oil	9,000	<b>UNIT / LOCATION AVERAGES</b>					<b>UNIVERSAL AVERAGES</b>
	MI/HR on Unit	475,000						
	Sample Date	3/20/2019						
	Make Up Oil Added	43 qts						
ALUMINUM	2	2					8	
CHROMIUM	0	0					2	
IRON	5	5					23	
COPPER	1	1					13	
LEAD	0	0					0	
TIN	1	1					0	
MOLYBDENUM	102	102					38	
NICKEL	0	0					1	
MANGANESE	0	0					0	
SILVER	0	0					0	
TITANIUM	0	0					2	
POTASSIUM	2	2					8	
BORON	253	253					46	
SILICON	9	9					6	
SODIUM	3	3					7	
CALCIUM	1441	1441					1701	
MAGNESIUM	582	582					551	
PHOSPHORUS	702	702					967	
ZINC	803	803					1161	
BARIUM	0	0					0	

Values Should Be\*

<b>PROPERTIES</b>	SUS Viscosity @ 210°	89.8	68-82				
	cSt Viscosity @ 100°C	17.92	12.4-16.3				
	Flashpoint in °F	435	>410				
	Fuel %	<0.5	<2.0				
	Antifreeze %	0.0	0.0				
	Water %	0.0	0.0				
	Insolubles %	0.1	<0.6				
	TBN	6.3	>1.0				
	TAN						
	ISO Code						

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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