



OIL REPORT

LAB NUMBER: F54439
 REPORT DATE: 5/15/2013
 CODE: 20/75

UNIT ID: RAM TRUCK
 CLIENT ID: 55665
 PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Cummins ISB 5.9L (Pickup)	OIL TYPE & GRADE: 5W/40
	FUEL TYPE: Diesel	OIL USE INTERVAL: 7,781 Miles
	ADDITIONAL INFO: 2006	

CLIENT	NICHOLAS X VOID	PHONE: CONFIDENTIAL <small>By nick at 9:14 pm, May 15, 2013</small>
	CONFIDENTIAL 4 <small>By nick at 9:15 pm, May 15, 2013</small>	FAX:
		ALT PH: CONFIDENTIAL <small>By nick at 9:14 pm, May 15, 2013</small> m

COMMENTS NICHOLAS: This sample was in use about 800 miles more than the previous sample and iron read high again. It brought copper to the party too, showing wear at brass/bronze parts like bushings and bearings. Titanium is probably an additive in the oil and not from any poorly wearing engine parts. Since iron is high and other metals are following suit, it might not be a bad idea to keep oil runs on the short side until wear metals subside. We found 0.5% fuel in this sample and the viscosity was thick for a 5W/40-grade oil. Neither is harmful to the engine. Check back on metals.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	7,781	UNIT / LOCATION AVERAGES	7,000				UNIVERSAL AVERAGES
	MI/HR on Unit	79,363		71,582				
	Sample Date	05/07/13		05/18/12				
	Make Up Oil Added	0 qts		0 qts				
ALUMINUM	4	4	3				3	
CHROMIUM	3	3	3				1	
IRON	125	118	111				24	
COPPER	17	12	6				5	
LEAD	3	3	2				2	
TIN	1	2	3				1	
MOLYBDENUM	54	57	60				38	
NICKEL	1	1	1				0	
MANGANESE	1	1	1				0	
SILVER	3	3	2				1	
TITANIUM	25	13	0				1	
POTASSIUM	6	6	6				5	
BORON	13	25	37				82	
SILICON	5	5	5				5	
SODIUM	6	6	6				5	
CALCIUM	1267	1059	850				2342	
MAGNESIUM	1165	1205	1245				382	
PHOSPHORUS	1139	1108	1077				1108	
ZINC	1429	1338	1246				1295	
BARIUM	0	0	0				0	

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	80.0	65-75	74.7			
	cSt Viscosity @ 100°C	15.53	11.6-14.5	14.17			
	Flashpoint in °F	405	>410	420			
	Fuel %	0.5	<2.0	<0.5			
	Antifreeze %	0.0	0	0.0			
	Water %	0.0	0.0	0.0			
	Insolubles %	0.4	<0.6	0.4			
	TBN						
	TAN						
	ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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