BLACKSTONE LABORATORIES

OIL REPORT

LAB NUMBER: [redacted] **UNIT ID:** 13 RAM 3500
REPORT DATE: 12/28/2016 **CLIENT ID:** [redacted]
CODE: 20/37 **PAYMENT:** CC: Visa (Bulk)

UNIT

MAKE/MODEL: Cummins ISB 6.7L (Pickup)
FUEL TYPE: Diesel
ADDITIONAL INFO:

OIL TYPE & GRADE: Shell Rotella T6 5W/40
OIL USE INTERVAL: 6,000 Miles

CLIENT

[redacted]
T&C DIESEL
1060 118TH LANE
BLAINE, MN 55434

PHONE: (763) 228-7121
FAX:
ALT PHONE:
EMAIL: todd@tcdiesel.com

COMMENTS

TODD: We don't see any obvious problems in the second sample for this Ram. Aluminum and potassium are still elevated, but we're leaning towards those being from something harmless like the intercooler. We've unmarked potassium, but we'll still keep an eye on aluminum since it can show piston wear. Iron and copper are still on the high side, but are certainly coming down. There could very well still be wear-in material hanging around, not to mention that hard use could be causing wear to read higher than we might otherwise expect. No fuel or coolant was found.

ELEMENTS IN PARTS PER MILLION

MI/HR on Oil	6,000	UNIT / LOCATION AVERAGES							UNIVERSAL AVERAGES
MI/HR on Unit	30,000		9,000						
Sample Date	12/21/2016		11/22/2014						
Make Up Oil Added	0 qts								
ALUMINUM	**9**	13	**16**						3
CHROMIUM	1	3	**5**						1
IRON	**43**	71	**99**						24
COPPER	**15**	112	**208**						7
LEAD	0	1	1						1
TIN	0	0	0						1
MOLYBDENUM	140	218	296						34
NICKEL	0	1	2						0
MANGANESE	1	2	3						0
SILVER	0	1	1						0
TITANIUM	0	0	0						2
POTASSIUM	21	31	**40**						8
BORON	33	22	10						50
SILICON	11	12	**13**						5
SODIUM	7	10	**13**						6
CALCIUM	896	1100	1304						1655
MAGNESIUM	1103	1037	971						584
PHOSPHORUS	1035	1055	1074						1026
ZINC	1270	1241	1211						1219
BARIUM	0	1	2						0

PROPERTIES

		Values Should Be*						
SUS Viscosity @ 210°F	71.5	66-78	73.5					
cSt Viscosity @ 100°C	13.34	11.9-15.3	13.87					
Flashpoint in °F	445	>410	450					
Fuel %	<0.5	<2.0	<0.5					
Antifreeze %	0.0	0.0	**?**					
Water %	0.0	0.0	0.0					
Insolubles %	0.3	<0.6	0.4					
TBN			5.2					
TAN								
ISO Code								

*** THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE**

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