



OIL REPORT

LAB NUMBER: K60620

UNIT ID: 49 WILLYS

REPORT DATE: 10/10/2018

CLIENT ID: 111926

CODE: 63/32

PAYMENT: Prepaid

UNIT

MAKE/MODEL: Willy's Jeep (Classic) 134 CID Inline 4
FUEL TYPE: Gasoline (Unleaded)
ADDITIONAL INFO: CJ3A

OIL TYPE & GRADE: Shell Rotella T4 15W/40
OIL USE INTERVAL: 2,650 Miles

CLIENT

TOM FITCH
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COMMENTS

TOM: Thanks for the notes. A thicker viscosity may slow the consumption rate, but it won't address the root cause of it. If it's working for you, then a thicker oil is fine to use. Metals are largely unchanged since the last sample, though chrome and iron did come down a bit. Silicon increased, as did potassium. Silicon may show dirt (check air filtration), and potassium may be related to the additive you used, or perhaps coolant. The viscosity was a touch thick for T4, but we doubt that's causing the extra wear. Watch the coolant level, and resample to monitor.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	2,650	UNIT / LOCATION AVERAGES	2,600	3,000				UNIVERSAL AVERAGES
	MI/HR on Unit								
	Sample Date	9/27/2018		10/6/2017	9/27/2016				
	Make Up Oil Added	5.50 qts		7 qts					
ALUMINUM	13	13	13	14					5
CHROMIUM	3	4	5	6					1
IRON	21	29	36	39					25
COPPER	26	27	27	67					17
LEAD	10	21	32	71					46
TIN	1	2	2	4					2
MOLYBDENUM	148	120	92	108					62
NICKEL	0	0	0	0					0
MANGANESE	0	0	0						1
SILVER	0	0	0	0					0
TITANIUM	1	1	0	0					0
POTASSIUM	76	53	29	2					19
BORON	152	116	80	89					64
SILICON	17	16	14	19					10
SODIUM	12	10	8	6					58
CALCIUM	2509	1944	1378	1504					1741
MAGNESIUM	173	531	888	993					164
PHOSPHORUS	1303	1484	1665	1864					878
ZINC	1326	1579	1831	2121					1001
BARIUM	0	0	0	0					2

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	81.6	68-78	84.0	85.1			
	cSt Viscosity @ 100°C	15.93	12.4-15.3	16.51	16.80			
	Flashpoint in °F	425	>390	410	-			
	Fuel %	<0.5	<2.0	<0.5	-			
	Antifreeze %	POS	0.0	?	0			
	Water %	0.0	0.0	0.0	0			
	Insolubles %	0.3	<0.6	0.2	-			
	TBN				7.5			
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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