

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number: OILANA-0881-0002 Company Name: JEFF FISHER Contact: Address: 17602 WESTLAKE DRIVE DRIPPINGS SPRINGS, TX 78620 US Phone Number: 512-241-9280		Component ID: 2006JEEP Secondary ID: 01 Component Type: DIESEL ENGINE Manufacturer: JEEP Model: LIBERTY Application: AUTOMOTIVE Sump Capacity: 6 qt		Tracking Number: 17130U05814 Lab Number: I-419017 Lab Location: Indianapolis Data Analyst: CXW Sampled: 08-Mar-2019 Submitted: 12-Mar-2019 Received: 18-Mar-2019 Completed: 19-Mar-2019	
Filter Information		Miscellaneous Information		Product Information	
Filter Type: FULLFLOW Micron Rating: 20				Product Manufacturer: CHEVRON Product Name: DELO 400 LE SYNTHETIC Viscosity Grade: SAE 5W40	
Comments	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Base Number is SLIGHTLY LOW. As Base Number depletes, the ability to neutralize acids is diminished. Soot is at a MINOR level and is not yet cause for concern. Monitor future samples for increasing levels. Elevated soot reduces combustion efficiency and may indicate varying load conditions, malfunctioning EGR, exhaust restriction, or a timing/air-to-fuel ratio imbalance. Viscosity is SLIGHTLY HIGH. Causes include contamination, oxidation, incorrectly identified viscosity grade, or adding a different viscosity grade to the component. Increased VISCOSITY is likely due to ELEVATED SOOT LEVEL. Molybdenum is slightly low for this lubricant.				

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
7	72	2	0	4	1	1	0	0	0	0	12	12	5	0	4	0	0	0	51	886	1613	0	878	977
6	129	4	1	8	2	4	0	0	0	0	25	5	7	0	63	1	0	0	21	1035	960	0	996	1145
5	206	6	0	7	3	5	1	0	0	0	25	5	3	0	17	0	1	0	51	13	2783	0	897	1033
4	149	4	2	2	2	2	0	0	0	0	20	8	0	0	239	2	0	0	141	15	3786	0	792	799
3	483	14	3	10	5	20	3	0	0	0	29	11	6	0	215	0	2	0	38	6	3656	0	747	809
2	216	13	1	16	3	3	2	0	0	0	20	5	1	0	0	0	1	0	54	22	2906	0	1054	1175

Sample #	Sample Information							Contaminants			Fluid Properties					
	Date Sampled	Date Received	Lube Time	Unit Time	Lube Change	Lube Added	Filter Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100 °C	Acid Number	Base No. D4739	Oxidation	Nitration
			mi	mi		qt		% Vol	% Vol	% Vol	cSt	cSt	mg KOH/g	mg KOH/g	abs/cm	mm
7	08-Mar-2019	18-Mar-2019	5600	160178	No	1	No	<1 - Estimate	2.3 - E2412	<.1 - FTIR		16.3		3.81	13	12
6	11-Jun-2018	20-Jun-2018	6654	153939	No	0	No	<1 - Estimate	5.7 - D7686	<.1 - FTIR		16.4		4.97	19	18
5	30-Jul-2017	10-Aug-2017	7647	146410	No	0	No	<1 - Estimate	<.1	<.1 - FTIR		16.4		5.87	11	5
4	15-Jan-2017	20-Jan-2017	3596	138150	No	0	No	<1 - Estimate	2.2 - E2412	<.1 - FTIR		15.7		8.58	48	12
3	12-Sep-2016	15-Sep-2016	14102	134554	Yes	1	Yes	<1 - Estimate	5.8 - D7686	0.1 - Hotplate		23.0		3.95	55	31
2	27-Oct-2014	03-Nov-2014	6369	110274	No	0	No	<1 - Estimate	2.7 - E2412	<.1 - FTIR		13.8		6.55	10	13

Particle Count (particles/mL)											Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	Test Method	
7	//										
6	//										
5	//										
4	//										
3	//										
2	//										

Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.

