

The holidays are coming! The holidays are coming! Not to go all Chicken Little on you, but you know there are people in your life who are hard to buy for. Why not an oil analysis from Blackstone Labs? We have a handy option for a gift certificate on our website. You can find it under the Products tab.

The Renuzit Experiment

by Ryan Stark

Back in April of 2012 I wrote about buying close to 30 full cans of old oil on eBay, cracking them open, and testing them. It was fun to see what all these old oils looked like, and we ended up learning a lot, but at the end of it all, I had close to 30 Ball jars full of old oil that ended up sitting on the shelf here in the garage, and lingering questions about what to do



Figure 2: A new generation is introduced to Renuzit.

with it all. Among the stuff I bought was a gallon can of oil that I never heard of called Renuzit 20W/20 (Figure 1). When it first arrived, I was slightly annoyed because the can itself had some rust on the bottom and was seeping oil. However, that turned out to be fortunate because it led me to try an experiment: Can I really run oil this old, and what would happen? I decided that my 1984 Chevy pick-up truck would be a good test bed for this experiment. I have a lot of good base-line data on how it usually looks. It sees roughly the same type of use year-to-year, and best of all, if the engine exploded, I wouldn't sue myself for damages.



Figure 1: Cut Your Oil Bills in Half!

So on a hot day in August 2012, with the help of my lovely assistant Natalie (Figure 2) I actually dumped that stuff in. Was I nervous? You bet! Renuzit doesn't exactly have a stout additive package (Figure 3), though that didn't scare me too much. **I've run oils in this engine that didn't have any**

additive at all that we could read. The viscosity was a little light (in the 20W range), but that didn't bother me too much either. This engine calls for a 10W/30, and anymore 10W/30 oil looks like 5W/30 after it's used, and that's just a few points higher than a 20W anyway. I guess I was really nervous about destroying my engine. I have rebuilt it in the past, and I know I could do it again,

but that doesn't mean I want to. My wife wouldn't be too happy about the time away from home and you never know, I might actually need my truck for transportation. Still, after declaring my intentions to our good customers around the world, I couldn't back down, so in it went (Figure 4). Upon first start-up I was relieved to see my oil pressure read normally. No funny smells came out of the engine/exhaust, and it seemed to run just fine. So far, so good. And with that, I proceeded to the next part of the test, which is always the hardest, putting miles on the engine.



Figure 4: About to put to rest the old wives tales that you can't use old oil. This Renuzit can dates from the 1940s.

Adding Miles

My truck is basically a back-up vehicle, used when I need to haul something or if one of our other vehicles is down, so getting miles on the oil isn't really all that easy. I live about 1.7 miles from work, so if the weather is nice, I usually ride my bike. On top of that, my daily driver is a MINI convertible,

which is about as fun of a car to drive as was ever made. Still, I worked hard and was able to get some miles on my truck. Right off the bat, I noticed that the engine ran quieter than normal (of course, I also had some muffler work done at the same time, so



Figure 5: Is this not the saddest MINI you've ever seen?

Renuzit

ELEMENTS IN PARTS PER MILLION	ALUMINUM	0
	CHROME	0
	IRON	1
	COPPER	0
	LEAD	0
	TIN	0
	MOLYBDENUM	0
	NICKEL	0
	POTASSIUM	0
	BORON	17
	SILICON	0
	SODIUM	2
	CALCIUM	1
MAGNESIUM	4	
PHOSPHORUS	268	
ZINC	125	
BARIUM	374	
PROPERTIES	SUS Visc @210°F	54.7
	cSt Visc @100°C	8.68
	Flashpoint in °F	450
	Fuel %	-
	Antifreeze %	-
	Water %	0.0
	Insolubles %	0.0
	TBN	0.0
TAN	0.5	
cSt Visc @40°C	67.63	

Figure 3: Not your everyday additive package.

that may have helped). By November, I was able to get about 400 miles on the engine, so I decided to test the oil (leaving it in use) and see how it was doing. The test came back showing no trouble at all, so I was happy and started to feel better about this experiment. Winter is a slow time for the truck. It actually lives in my neighbor's garage and doesn't see a lot of use. Being a rear-wheel drive pick-up truck, it doesn't do very well in the ice and snow. Eventually spring came so the truck use started to increase but that's when tragedy struck! (Figure 5) My MINI flooded one night while I was in Chicago with some friends. It was a rare occasion that the car actually spent time parked on the street in front of my friend's house, and it just happened to be the night the north side of Fort Wayne got about six inches of rain in a hour. The street



Figure 6: Some people say you can't use old oil. We say that's hogwash.

received in the past (see the Report of the Month on the next page).

So there you have it--an ancient oil run in a fairly modern engine, and no harm done. Would I run it again? Sure thing, except it goes against my principle of not paying any more than I have to for an oil change. That stuff was \$75 for 5 quarts, plus \$25 for shipping and that's not in my budget, even if I could find it again. Still, this was a fun experiment, and since Blackstone still had a lot of old oil leftover from the eBay purchases, I decided to run those (Figures 6 and 7). Besides, it's canning season and I need the jars.

turned into a lake and my car went for a swim.

The Bright Side

The good news is that my truck was still running well and, being promoted to daily driver, I was going to start putting a lot of miles on it. Over the summer and into the fall I was able to accumulate almost 2,000 miles which is still short of 2,500-mile double-money back guarantee that the Renuzit can advertised, but a long run for my truck. In fact, I was thinking about running the oil longer, but it was close to the "Add" mark on the dipstick, and not having any more of this oil, I decided to just go ahead and change it. A sample was taken (of course) and the results aren't any better or worse that what I've



Figure 7: We are also not afraid of mixing oils. Next up: two quarts of Havoline 20W/20 and a quart each of Mobil Special 10W/30, Amoco 10W/40, and K-Mart 10W/40.

Report of the Month

This oil is at least 50 years old. It's running in Ryan's 1984 Chevy V8. What do you think?

To learn more about where the elements are coming from, [click here](#).

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	1,819	UNIT/ LOCATION AVERAGES	808	388	925	687	UNIVERSAL AVERAGES
	MI/HR on Unit	190,244		189,233	188,813	188,425	187,500	
	Sample Date	10/4/13		05/02/13	11/08/12	08/04/12	09/20/11	
	ALUMINUM	3		4	3	1	3	
CHROME	2	2	1	1	1	1	2	
IRON	33	29	14	9	15	13	34	
COPPER	4	5	3	2	3	3	11	
LEAD	14	18	7	5	15	13	12	
TIN	6	3	6	6	5	4	2	
MO LYBDENUM	10	80	7	4	12	37	56	
NICKEL	0	0	0	0	0	0	1	
POTASSIUM	2	0	0	0	1	0	9	
BORON	6	25	8	13	23	197	44	
SILICON	10	12	5	5	15	24	21	
SODIUM	40	12	41	41	279	1	38	
CALCIUM	256	1121	258	283	1774	1910	1999	
MAGNESIUM	3	97	1	3	9	8	218	
PHOSPHORUS	327	538	343	342	689	643	790	
ZINC	250	618	245	256	852	723	944	
BARIUM	282	34	282	282	0	0	1	

Values
Should Be*

PROPERTIES	SUS Viscosity @210°F	52.1	52-60	51.7	52.3	55.6	55.0
	cSt Viscosity @ 100°C	7.91	7.9-10.5	7.80	7.97	8.96	8.76
	Flashpoint in °F	405	>400	425	420	420	405
	Fuel %	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5
	Antifreeze %	0.0	0.0	0.0	0.0	0.0	0.0
	Water %	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.3	<0.6	0.3	0.3	0.2	0.3
	TBN	0.2	>1.0				
	TAN	1.8					
	ISO Code						

*THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

Quite frankly, we are impressed with these results. GM's 350 V8 engine tends to make a fair amount of metal, as you can see in the universal averages column, and Ryan's wear looks just fine compared to averages. Keep in mind that this oil only has 1,819 miles on it and averages are based on ~3,400 miles, but Ryan's truck is actually wearing better on this oil than it was back in 2011 and 2012. Those samples were run less than a thousand miles, so on a per-mile basis wear is better now than ever before. Maybe that's due to more frequent use, or maybe the truck really likes Renuzit. Hard to say, but we can tell you one thing for sure: old oil didn't hurt a thing here!