

Miles at Oil Change	5000	10000	15000	20000	25000	30000	35000	Base Line	40000	45000	47,777	52000	58,000	62,000	65,905	75,000	79,938	85,000	90,005	95,000	99,507	106,390	115,000	120,000	
Change date	Aug-97	Oct-97	Mar-98	Jul-98	Oct-98	Feb-99	May-99	Jun-99	Oct-99	Jan-00	Apr-00	Sep-00	Feb-01	Jun-01	Dec-01	Jun-02	Jan-03	Jul-03	Nov-03	Jul-04	Oct-04	May-05	Mar-06	Sep-06	
Wear metals - ppm by wt.																									
Iron	49	6	67	52	36	42	22	2	17	20	21	21		28	75	52	53	20	26	43	18	33	51	23	
Lead	16	1	6	10	7	4	1	1	3	1	1	3		1	2	3	1	2	2	0	2	9	5		
Copper	21	3	10	9	7	7	6	5	13	7	8	19		9	8	9	14	9	6	9	5	7	13	5	
Chromium	8	0	12	8	5	6	3	0	2	4	2	3		3	9	4	8	5	5	6	3	6	5	1	
Tin	2	0	0	0	0	0	0	0	0	0	0	0		0	1	1	0	0	0	0	0	2	0	0	
Aluminum	16	3	10	9	8	9	5	1	6	6	7	8		8	12	12	13	8	7	10	6	9	10	5	
Silver	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Nickel	1	0	1	1	1	1	0	0	1	0	0	0		0	0	1	0	0	0	0	0	0	0	0	
Vanadium	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Titanium	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Contaminant Metals - ppm by wt.																									
Silicon	44*	8	20	27	24	19	15	27	13	6	7	8		11	11	28	18	8	14	18	12	15	25	23	
Sodium	43	145	0	0	6	8	3	0	7	6	9	9		17	6	8	15	6	9	12	16	15	13	0	
Potassium	10	0	0	0	2	3	0	0	0	0	0	0		0	N/A	N/A	0	0	0	0	0	0	0	0	
Boron	52	26	73	67	66	61	73	99	69	69	95	91		89	91	36	59	5	37	50	72	40	54	60	
Additive Metals - ppm by wt.																									
Magnesium	674	250	694	667	610	600	355	1453	771	1427	2191	2156		2020	1557	428	1331	458	1224	1538	988	1388	947	517	
Calcium	1418	2565	1447	1389	1248	1258	2977	829	1657	739	1058	980		1297	1285	1898	838	2186	826	857	1236	794	1352	1894	
Barium	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	
Phosphorus	1050	539	1076	1160	987	1040	839	833	980	841	1092	1206		1162	978	845	930	905	982	954	957	534	734	792	
Zinc	1244	987	1258	1351	991	1076	1160	1312	1191	1203	1233	1305		1260	1135	1113	1169	1213	1155	1092	1017	1160	902	893	
Molybdenum	7	38	3	2	2	2	0	3	2	1	0	0		0	16	45	6	2	0	1	17	5	29	66	
Non-metallic Contaminants																									
Fuel % vol	3.0%	<1%		2%	2%	5.5%	<1.0	<1.0	<1.0%	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	
Water % vol	<1%	0		<1%	<1%	<1%	<0.05%	<0.05%	<0.05	<0.05	<0.05	<0.05		<0.05	0.1	0.1	0	0	0	0	0	0	0	0	
Glycol	na	neg					NEG	NEG	NEG	NEG	NEG	NEG		NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	
Viscosity 100 Deg C							9.5	10.2	9.6	9.5	8.5	9.3		8.9	9.1	9.8	9.31	9.24	8.95	9.17	9.78	10.5	12.39	11.2	
% Solids							TR	TR	TR	TR	TR	TR		TR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	na	
% Oxd							<1.0	TR	11.1	<1.0	25.6	27.8		30	31.1	30	25	42	32	31	31	N/A	N/A	na	
% NOX							21.4	2.9	24.3	30	28.6	31.4		34.3	32.9	34.3	28	43	29	28	27	27	27	na	
TBN							7.0	NA	4.8	7.5	10.0	9.8		9.8	7.3	6.9	6.51	5.56	6.91	5.85	6.95	5.59	4.12	4.13	
Grade	SH	SH	SH	SH	SH	SH	SJ	SJ	SJ	SJ	SJ	SJ		SJ	SJ	SJ	SJ	SJ	SJ	SJ	SJ	SJ	SJ	SJ	
Brand Oil	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1		Mobil 1	Mobil 1	Mobil 1	Mobil 1	Amsoil	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	
Vis Grade	5W-30	0W-30	5W-30	5W-30	5W-30	0W-30	5W-30	10W-30	5W-30	5W-30	5W-30	5W-30		5W-30	5W-30	5W-30	5W-30	5W-30	5W-30	5W-30	5W-30	5W-30	5W-30	5W-30	
Filter Changed- Brand	Ford	Ford	Ford	Ford	Ford	Ford	Ford	NA	Mobil 1	Mobil 1	K&N	K&N		AC DG	AC DG	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	Mobil 1	AC DG	K&N	AC DG	