

Fuel Analyses conducted by the EPA National Vehicle and Fuels Emissions Laboratory

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7	Phillips/Borger	6/29/98	summer	test	batch D628 MTBE + TAME
8	Phillips/Borger	6/29/98	summer	test	batch D517 MTBE only
9	Houston	9/4/98	summer	test	tests include gum and peroxides
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FTAG: 7768 Village of Elk Grove - control fuel - commercial RFG1 - 3/17/98

CODE	TEST	RESULT	UNITS
552	MTBE by OFID	0.084	Oxy Percent
55	MTBE by OFID	0.46	Volume Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
532	Ethanol by OFID	8.5	Volume Percent
534	Ethanol by OFID	3.178	Oxy Percent
57	TAME by OFID	0	Volume Percent
572	TAME by OFID	0	Oxy Percent
421	Sulfur in Gasoline by ASTM D 2622	219	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	12.21	PSIA
65	Percent Evaporated at 200 Degrees F	49	Volume Percent
66	Percent Evaporated at 300 Degrees F	84.9	Volume Percent
48	Aromatics in Gasoline MSD D5769	26.459	Volume Percent
49	Olefins in by FIA D-1319-93	2.538	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.8479	Volume Percent
63	Benzene in Gasoline by MSD D5769	0.947	Volume Percent
46	Aromatics by FIA D-1319-93	21.3	Volume Percent
531	Ethanol by MSD (Screen)	10.29	Volume Percent
551	MTBE by MSD (Screen)	0.33	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.738829	60/60F
692	Degrees API	60.17	Degrees API
691	Density @ 60 deg F	0.738099	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	88	Degrees F
110	10 Percent	114.2	Degrees F
150	50 Percent	204.4	Degrees F
190	90 Percent	325.69	Degrees F
200	End Point	398.1	Degrees F
201	Residue	1	ml
202	Total Recovery	97.09	ml
203	Loss	1.89	ml
592	Volume Percent Oxygenates by MSD	10.62	Volume Percent
541	Methanol by MSD (Screen)	0	Volume Percent
591	Weight Percent Oxygen by MSD	3.6	Weight Percent
543	Methanol by OFID	0	Volume Percent
533	Ethanol by 4815	8.45	Volume Percent
585	t-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0	Volume Percent
5802	n-Butanol by OFID	0	Volume Percent
593	Volume Percent Oxygenates by OFID	8.97	Volume Percent
59	Weight Percent Oxygen by OFID	3.26	Weight Percent
225	Copper Corrosion D-130-94	1a	Designation

FTAG: 7769 Village of Elk Grove - control fuel - commercial RFG1 - 5/6/98

CODE	TEST	RESULT	UNITS
55	MTBE by OFID	0.37	Volume Percent
552	MTBE by OFID	0.067	Oxy Percent
562	ETBE by OFID	0	Oxy Percent
56	ETBE by OFID	0	Volume Percent
534	Ethanol by OFID	3.259	Oxy Percent
532	Ethanol by OFID	8.75	Volume Percent
572	TAME by OFID	0	Oxy Percent
57	TAME by OFID	0	Volume Percent
421	Sulfur in Gasoline by ASTM D 2622	246	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	11.529	PSIA
65	Percent Evaporated at 200 Degrees F	47.6	Volume Percent
66	Percent Evaporated at 300 Degrees F	83	Volume Percent
48	Aromatics in Gasoline MSD D5769	26.285	Volume Percent
49	Olefins in by FIA D-1319-93	2.805	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.8289	Volume Percent
63	Benzene in Gasoline by MSD D5769	0.91	Volume Percent
46	Aromatics by FIA D-1319-93	22.1	Volume Percent
531	Ethanol by MSD (Screen)	10.06	Volume Percent
551	MTBE by MSD (Screen)	0	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.74145	60/60F
692	Degrees API	59.34	Degrees API
691	Density @ 60 deg F	0.74072	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	90.29	Degrees F
110	10 Percent	120	Degrees F
150	50 Percent	210.8	Degrees F
190	90 Percent	333.89	Degrees F
200	End Point	404.89	Degrees F
201	Residue	1.3	ml
202	Total Recovery	96.9	ml
203	Loss	1.8	ml
541	Methanol by MSD (Screen)	0	Volume Percent
592	Volume Percent Oxygenates by MSD	10.06	Volume Percent
591	Weight Percent Oxygen by MSD	3.47	Weight Percent
543	Methanol by OFID	0	Volume Percent
533	Ethanol by 4815	8.87	Volume Percent
585	t-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0	Volume Percent
5802	n-Butanol by OFID	0	Volume Percent
593	Volume Percent Oxygenates by OFID	9.12	Volume Percent
59	Weight Percent Oxygen by OFID	3.32	Weight Percent
225	Copper Corrosion D-130-94	1a	Designation

FTAG: 7770 Village of Elk Grove - test fuel - Phillips RFG2 - 3/17/98

CODE	TEST	RESULT	UNITS
552	MTBE by OFID	0	Oxy Percent
55	MTBE by OFID	0	Volume Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
534	Ethanol by OFID	3.891	Oxy Percent
532	Ethanol by OFID	10.44	Volume Percent
572	TAME by OFID	0	Oxy Percent
57	TAME by OFID	0	Volume Percent
421	Sulfur in Gasoline by ASTM D 2622	308	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	12.599	PSIA
65	Percent Evaporated at 200 Degrees F	52.299	Volume Percent
66	Percent Evaporated at 300 Degrees F	81.4	Volume Percent
48	Aromatics in Gasoline MSD D5769	24.968	Volume Percent
49	Olefins in by FIA D-1319-93	7.967	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.884	Volume Percent
46	Aromatics by FIA D-1319-93	21.1	Volume Percent
63	Benzene in Gasoline by MSD D5769	0.989	Volume Percent
531	Ethanol by MSD (Screen)	11.31	Volume Percent
551	MTBE by MSD (Screen)	0	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.74048	60/60F
692	Degrees API	59.59	Degrees API
691	Density @ 60 deg F	0.73975	g/cm ³ @ 60 deg F 60
101	D 86 Initial Boiling Point	85.29	Degrees F
110	10 Percent	110.59	Degrees F
150	50 Percent	176	Degrees F
190	90 Percent	328.89	Degrees F
200	End Point	396	Degrees F
201	Residue	1.1	ml
202	Total Recovery	96.59	ml
203	Loss	2.29	ml
592	Volume Percent Oxygenates by MSD	11.31	Volume Percent
541	Methanol by MSD (Screen)	0	Volume Percent
591	Weight Percent Oxygen by MSD	3.91	Weight Percent
543	Methanol by OFID	0	Volume Percent
533	Ethanol by 4815	10.15	Volume Percent
585	t-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0	Volume Percent
5802	n-Butanol by OFID	0	Volume Percent
593	Volume Percent Oxygenates by OFID	10.44	Volume Percent
59	Weight Percent Oxygen by OFID	3.89	Weight Percent
225	Copper Corrosion D-130-94	1a	Designation

FTAG: 7771 Village of Elk Grove - test fuel - Phillips RFG2 - 5/6/98

CODE	TEST	RESULT	UNITS
55	MTBE by OFID	0	Volume Percent
552	MTBE by OFID	0	Oxy Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
532	Ethanol by OFID	10.14	Volume Percent
534	Ethanol by OFID	3.776	Oxy Percent
57	TAME by OFID	0	Volume Percent
572	TAME by OFID	0	Oxy Percent
421	Sulfur in Gasoline by ASTM D 2622	307	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	12.589	PSIA
65	Percent Evaporated at 200 Degrees F	52.799	Volume Percent
66	Percent Evaporated at 300 Degrees F	82	Volume Percent
48	Aromatics in Gasoline MSD D5769	26.158	Volume Percent
49	Olefins in by FIA D-1319-93	9.316	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.889	Volume Percent
63	Benzene in Gasoline by MSD D5769	0.996	Volume Percent
46	Aromatics by FIA D-1319-93	21.8	Volume Percent
531	Ethanol by MSD (Screen)	10.59	Volume Percent
551	MTBE by MSD (Screen)	0	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.74146	60/60F
692	Degrees API	59.33	Degrees API
691	Density @ 60 deg F	0.74073	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	89	Degrees F
110	10 Percent	111	Degrees F
150	50 Percent	175.3	Degrees F
190	90 Percent	330.5	Degrees F
200	End Point	392.6	Degrees F
201	Residue	1.1	ml
202	Total Recovery	97.4	ml
203	Loss	1.5	ml
592	Volume Percent Oxygenates by MSD	10.59	Volume Percent
541	Methanol by MSD (Screen)	0	Volume Percent
591	Weight Percent Oxygen by MSD	3.66	Weight Percent
543	Methanol by OFID	0	Volume Percent
533	Ethanol by 4815	10.09	Volume Percent
585	t-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0	Volume Percent
5802	n-Butanol by OFID	0	Volume Percent
593	Volume Percent Oxygenates by OFID	10.14	Volume Percent
59	Weight Percent Oxygen by OFID	3.77	Weight Percent
225	Copper Corrosion D-130-94	1a	Designation

FTAG: 7772 Village of Elk Grove - fuel from vehicle 238 - 5/6/98

CODE	TEST	RESULT	UNITS
55	MTBE by OFID	0	Volume Percent
552	MTBE by OFID	0	Oxy Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
532	Ethanol by OFID	10.14	Volume Percent
534	Ethanol by OFID	3.768	Oxy Percent
57	TAME by OFID	0	Volume Percent
572	TAME by OFID	0	Oxy Percent
421	Sulfur in Gasoline by ASTM D 2622	312	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	12.3	PSIA
65	Percent Evaporated at 200 Degrees F	51.899	Volume Percent
66	Percent Evaporated at 300 Degrees F	81.2	Volume Percent
48	Aromatics in Gasoline MSD D5769	25.669	Volume Percent
49	Olefins in by FIA D-1319-93	9.478	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.896	Volume Percent
46	Aromatics by FIA D-1319-93	22.3	Volume Percent
63	Benzene in Gasoline by MSD D5769	1.008	Volume Percent
531	Ethanol by MSD (Screen)	10.92	Volume Percent
551	MTBE by MSD (Screen)	0	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.74299	60/60F
692	Degrees API	58.94	Degrees API
691	Density @ 60 deg F	0.74226	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	89.79	Degrees F
110	10 Percent	114.09	Degrees F
150	50 Percent	181.8	Degrees F
190	90 Percent	331.3	Degrees F
200	End Point	398.69	Degrees F
201	Residue	0.69	ml
202	Total Recovery	97.2	ml
203	Loss	2.1	ml
541	Methanol by MSD (Screen)	0	Volume Percent
592	Volume Percent Oxygenates by MSD	10.92	Volume Percent
591	Weight Percent Oxygen by MSD	3.79	Weight Percent
543	Methanol by OFID	0	Volume Percent
533	Ethanol by 4815	10.15	Volume Percent
585	t-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0	Volume Percent
5802	n-Butanol by OFID	0	Volume Percent
593	Volume Percent Oxygenates by OFID	10.14	Volume Percent
59	Weight Percent Oxygen by OFID	3.76	Weight Percent
225	Copper Corrosion D-130-94	1a	Designation

FTAG: 7661 Phillips fuel sample D-628 - RFG2 - 6/29/98

CODE	TEST	RESULT	UNITS
55	MTBE by OFID	10.6	Volume Percent
552	MTBE by OFID	1.946	Oxy Percent
562	ETBE by OFID	0	Oxy Percent
56	ETBE by OFID	0	Volume Percent
534	Ethanol by OFID	0	Oxy Percent
532	Ethanol by OFID	0	Volume Percent
57	TAME by OFID	2.94	Volume Percent
572	TAME by OFID	0.485	Oxy Percent
421	Sulfur in Gasoline by ASTM D 2622	90	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	9.919	PSIA
65	Percent Evaporated at 200 Degrees F	54.899	Volume Percent
66	Percent Evaporated at 300 Degrees F	88.599	Volume Percent
48	Aromatics in Gasoline MSD D5769	25.574	Volume Percent
49	Olefins in by FIA D-1319-93	13.004	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.915	Volume Percent
46	Aromatics by FIA D-1319-93	19.19	Volume Percent
63	Benzene in Gasoline by MSD D5769	1.018	Volume Percent
531	Ethanol by MSD (Screen)	0	Volume Percent
551	MTBE by MSD (Screen)	13.13	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	3.58	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.73804	60/60F
692	Degrees API	60.22	Degrees API
691	Density @ 60 deg F	0.73732	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	101	Degrees F
110	10 Percent	137.3	Degrees F
150	50 Percent	190.4	Degrees F
190	90 Percent	303.3	Degrees F
200	End Point	368.3	Degrees F
201	Residue	1	ml
202	Total Recovery	98.09	ml
203	Loss	0.9	ml
541	Methanol by MSD (Screen)	0	Volume Percent
592	Volume Percent Oxygenates by MSD	16.71	Volume Percent
591	Weight Percent Oxygen by MSD	2.79	Weight Percent
543	Methanol by OFID	0	Volume Percent
585	t-Butanol by OFID	0.04	Volume Percent
587	sec-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0.01	Volume Percent
5802	n-Butanol by OFID	0.04	Volume Percent
593	Volume Percent Oxygenates by OFID	13.59	Volume Percent
59	Weight Percent Oxygen by OFID	2.44	Weight Percent
32	Weight Fraction Carbon ASTM D 3343-95	0.8598	Weight Fraction
73	Net Heat of Combustion ASTM D 3338-92	18605	BTU per Pound

FTAG: 7662 Phillips fuel sample D-517 - RFG2 - 6/29/98

CODE	TEST	RESULT	UNITS
55	MTBE by OFID	11.34	Volume Percent
552	MTBE by OFID	2.068	Oxy Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
532	Ethanol by OFID	0	Volume Percent
534	Ethanol by OFID	0	Oxy Percent
572	TAME by OFID	0	Oxy Percent
57	TAME by OFID	0	Volume Percent
421	Sulfur in Gasoline by ASTM D 2622	121	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	6.66	PSIA
65	Percent Evaporated at 200 Degrees F	46.899	Volume Percent
66	Percent Evaporated at 300 Degrees F	87.4	Volume Percent
48	Aromatics in Gasoline MSD D5769	28.285	Volume Percent
49	Olefins in by FIA D-1319-93	11.335	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	1.0689	Volume Percent
46	Aromatics by FIA D-1319-93	21.3	Volume Percent
63	Benzene in Gasoline by MSD D5769	1.181	Volume Percent
531	Ethanol by MSD (Screen)	0	Volume Percent
551	MTBE by MSD (Screen)	13.45	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.742779	60/60F
692	Degrees API	59	Degrees API
691	Density @ 60 deg F	0.742049	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	100.29	Degrees F
110	10 Percent	140.59	Degrees F
150	50 Percent	206.3	Degrees F
190	90 Percent	311.19	Degrees F
200	End Point	372.39	Degrees F
201	Residue	0.69	ml
202	Total Recovery	98.09	ml
203	Loss	1.19	ml
541	Methanol by MSD (Screen)	0	Volume Percent
592	Volume Percent Oxygenates by MSD	13.45	Volume Percent
591	Weight Percent Oxygen by MSD	2.24	Weight Percent
543	Methanol by OFID	0	Volume Percent
585	t-Butanol by OFID	0.05	Volume Percent
587	sec-Butanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0.01	Volume Percent
5802	n-Butanol by OFID	0.05	Volume Percent
593	Volume Percent Oxygenates by OFID	11.39	Volume Percent
59	Weight Percent Oxygen by OFID	2.08	Weight Percent
32	Weight Fraction Carbon ASTM D 3343-95	0.8613	Weight Fraction
73	Net Heat of Combustion ASTM D 3338-92	18570	BTU per Pound

FTAG: 7870 Houston test fuel - sample A - RFG2 - 9/4/98

CODE	TEST	RESULT	UNITS
552	MTBE by OFID	2.045	Oxy Percent
55	MTBE by OFID	11.22	Volume Percent
562	ETBE by OFID	0	Oxy Percent
56	ETBE by OFID	0	Volume Percent
534	Ethanol by OFID	0	Oxy Percent
532	Ethanol by OFID	0	Volume Percent
572	TAME by OFID	0	Oxy Percent
57	TAME by OFID	0	Volume Percent
421	Sulfur in Gasoline by ASTM D 2622	133	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	7.059	PSIA
62	Vapor Pressure by Appendix E Method 3	7.03	PSIA
65	Percent Evaporated at 200 Degrees F	46.2	Volume Percent
66	Percent Evaporated at 300 Degrees F	86.7	Volume Percent
48	Aromatics in Gasoline MSD D5769	24.283	Volume Percent
49	Olefins in by FIA D-1319-93	12.042	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.9939	Volume Percent
46	Aromatics by FIA D-1319-93	21.89	Volume Percent
63	Benzene in Gasoline by MSD D5769	1.125	Volume Percent
531	Ethanol by MSD (Screen)	0	Volume Percent
551	MTBE by MSD (Screen)	7.75	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.74319	60/60F
692	Degrees API	58.89	Degrees API
691	Density @ 60 deg F	0.74246	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	104.7	Degrees F
110	10 Percent	143.4	Degrees F
150	50 Percent	207.69	Degrees F
190	90 Percent	311.19	Degrees F
200	End Point	382.5	Degrees F
201	Residue	1.1	ml
202	Total Recovery	98	ml
203	Loss	0.9	ml
592	Volume Percent Oxygenates by MSD	7.75	Volume Percent
541	Methanol by MSD (Screen)	0	Volume Percent
591	Weight Percent Oxygen by MSD	1.4	Weight Percent
543	Methanol by OFID	0.07	Volume Percent
585	t-Butanol by OFID	0.05	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0.01	Volume Percent
5802	n-Butanol by OFID	0.05	Volume Percent
593	Volume Percent Oxygenates by OFID	11.35	Volume Percent
59	Weight Percent Oxygen by OFID	2.09	Weight Percent
227	Gum Content Washed	0.2	mg/100ml
228	Gum Content Unwashed	17.6	mg/100ml
229	Peroxides	0	Weight Percent

FTAG: 7871 Houston control fuel - sample B - commercial RFG1 - 9/4/98

CODE	TEST	RESULT	UNITS
552	MTBE by OFID	1.626	Oxy Percent
55	MTBE by OFID	8.94	Volume Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
534	Ethanol by OFID	0	Oxy Percent
532	Ethanol by OFID	0	Volume Percent
572	TAME by OFID	0.082	Oxy Percent
57	TAME by OFID	0.5	Volume Percent
421	Sulfur in Gasoline by ASTM D 2622	165	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	7.12	PSIA
62	Vapor Pressure by Appendix E Method 3	7.11	PSIA
65	Percent Evaporated at 200 Degrees F	51.899	Volume Percent
66	Percent Evaporated at 300 Degrees F	80.599	Volume Percent
48	Aromatics in Gasoline MSD D5769	24.271	Volume Percent
49	Olefins in by FIA D-1319-93	18.604	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.4829	Volume Percent
46	Aromatics by FIA D-1319-93	23.69	Volume Percent
63	Benzene in Gasoline by MSD D5769	0.52	Volume Percent
531	Ethanol by MSD (Screen)	0	Volume Percent
551	MTBE by MSD (Screen)	6.85	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0.5	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.744839	60/60F
692	Degrees API	58.47	Degrees API
691	Density @ 60 deg F	0.744099	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	103.4	Degrees F
110	10 Percent	137.69	Degrees F
150	50 Percent	195.69	Degrees F
190	90 Percent	344.39	Degrees F
200	End Point	420.1	Degrees F
201	Residue	0.8	ml
202	Total Recovery	98.09	ml
203	Loss	1.1	ml
592	Volume Percent Oxygenates by MSD	7.62	Volume Percent
541	Methanol by MSD (Screen)	0	Volume Percent
591	Weight Percent Oxygen by MSD	1.4	Weight Percent
543	Methanol by OFID	0.06	Volume Percent
585	t-Butanol by OFID	0.05	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0.01	Volume Percent
5802	n-Butanol by OFID	0.05	Volume Percent
593	Volume Percent Oxygenates by OFID	9.57	Volume Percent
59	Weight Percent Oxygen by OFID	1.75	Weight Percent
227	Gum Content Washed	0.59	mg/100ml
228	Gum Content Unwashed	10	mg/100ml
229	Peroxides	0	Weight Percent

FTAG: 7872 Houston control fuel - sample C - commercial RFG1 - 9/4/98

CODE	TEST	RESULT	UNITS
55	MTBE by OFID	8.96	Volume Percent
552	MTBE by OFID	1.631	Oxy Percent
56	ETBE by OFID	0	Volume Percent
562	ETBE by OFID	0	Oxy Percent
534	Ethanol by OFID	0	Oxy Percent
532	Ethanol by OFID	0	Volume Percent
572	TAME by OFID	0.079	Oxy Percent
57	TAME by OFID	0.48	Volume Percent
421	Sulfur in Gasoline by ASTM D 2622	105	Parts Per Million
62	Vapor Pressure by Appendix E Method 3	7.08	PSIA
62	Vapor Pressure by Appendix E Method 3	7.08	PSIA
65	Percent Evaporated at 200 Degrees F	52.399	Volume Percent
66	Percent Evaporated at 300 Degrees F	81.599	Volume Percent
48	Aromatics in Gasoline MSD D5769	25.009	Volume Percent
49	Olefins in by FIA D-1319-93	17.828	Volume Percent
64	Benzene in Gasoline by ASTM D 3606	0.4769	Volume Percent
63	Benzene in Gasoline by MSD D5769	0.519	Volume Percent
46	Aromatics by FIA D-1319-93	23.1	Volume Percent
531	Ethanol by MSD (Screen)	0	Volume Percent
551	MTBE by MSD (Screen)	6.86	Volume Percent
561	ETBE by MSD (Screen)	0	Volume Percent
571	TAME by MSD (Screen)	0.53	Volume Percent
69	Specific Gravity @ 60 Degrees F	0.7449	60/60F
692	Degrees API	58.45	Degrees API
691	Density @ 60 deg F	0.744169	g/cm ³ @ 60 deg F
101	D 86 Initial Boiling Point	104.09	Degrees F
110	10 Percent	135.69	Degrees F
150	50 Percent	194.5	Degrees F
190	90 Percent	343.89	Degrees F
200	End Point	415.5	Degrees F
201	Residue	0.8	ml
202	Total Recovery	97.7	ml
203	Loss	1.5	ml
592	Volume Percent Oxygenates by MSD	7.67	Volume Percent
541	Methanol by MSD (Screen)	0	Volume Percent
591	Weight Percent Oxygen by MSD	1.4	Weight Percent
543	Methanol by OFID	0.06	Volume Percent
585	t-Butanol by OFID	0.05	Volume Percent
586	n-Propanol by OFID	0	Volume Percent
588	DIPE by OFID	0	Volume Percent
589	Isobutanol by OFID	0.01	Volume Percent
5802	n-Butanol by OFID	0.05	Volume Percent
593	Volume Percent Oxygenates by OFID	9.57	Volume Percent
59	Weight Percent Oxygen by OFID	1.75	Weight Percent
226	Acidity as Acetic Acid	0.001	Weight Percent