PROCESS NAME:			Fictitious Gasoline Life Cycle Inventory							
PROCESS ID:			Gasoline							
REFERENCE FLOW:			1000		Units:	gallons	of:	Gasoline		
PROCESS DESCRIPTION:			Summary of LCI to extract, produce, and distribute 1,000 gallons of gasoline used							
			to fuel a typical passenger automobile in the US.							
BASIS OF CALCULATIONS										
				Summer	Winter	Average	Units	Reference		
	Oxygen Content			2.1	1.9	0.02	percent	EPA, OTAQ; MOBILE 6		
	Molecular Weight					88	g/mol	www.chemfinder.com		
	Oxygenate Content by Volume					11.05	percent by volume			
	Oxygenate Content by Weight					11.15	percent by weight			
	Fuel Economy Estimated for Average Car By Fuel Type					20.22	miles/gal	MOBILE 6		
	Petroleum Refining Process Efficiency (mass outputs/mass inputs)									
		Petroleum Refinery Process Efficiency (mass basis)				92	percent	EIA		
		GREET v1.6 Published Petroleum Refinery Efficiency				85	percent	Greet1.6		
		Process Efficiency Used in Calculations				85	percent			
Process Inputs										
	Material	Coal					9.88E+01	lb		
		Crude Oil					5.64E+02	gal		
		Natural Gas					3.23E+02	SCF		
		Uranium					6.69E-02	lb		
		Wood					3.99E+00	lb		
		Drilling Fluids					Unknown			
Process Outputs										
	Product	Gasoline					594	gal	Calculated	
	Co-Product	N/A								
	Air Emissions									

			Mat. P&D	Fuel P&D	Fuel Use	Process	Total	Units		
		Volatile Organic Compounds (VOC)	1.86E-01	1.49E-01	2.98E-01	1.36E+01	1.42E+01	lb		
		Carbon Monoxide (CO)	4.69E-01	4.78E-01	2.32E+00	3.00E+02	3.03E+02	lb		
		Nitrogen Oxides (NOx)	1.51E+00	1.64E+00	8.33E+00	2.26E+01	3.41E+01	lb		
		PM10	6.16E-02	2.06E-01	2.45E-01	6.79E-01	1.19E+00	lb		
		Sulfur Oxides (SOx)	6.41E-01	2.17E+00	2.52E+00	1.44E+00	6.77E+00	lb		
		Methane	5.60E-01	1.26E+00	3.18E-01	1.70E+00	3.84E+00	lb		
		Nitrous Oxide (N2O)	3.91E-03	4.38E-03	2.85E-02		3.68E-02	lb		
		Carbon Dioxide (CO2)	2.20E+02	3.75E+02	1.56E+03	1.20E+04	1.41E+04	lb		
		VOC loss: evaporation				1.39E+01	1.39E+01	lb		
		VOC loss: spillage	2.70E-04	2.36E-03			2.62E-03	lb		
		1 1 1-Trichloroethane				2.19E-05	2.19E-05	lb		
		1 2 3-Trichloropropane				9.67E-06	9.67E-06	lb		
		1 2 4-Trichlorobenzene				5.8E-07	5.8E-07	lb		
		1 2 4-Trimethylbenzene	1.07E-04	1.02E-04		1.23E-01	1.23E-01	lb		
		1 2-Dibromoethane	1.24E-06	1.19E-06		1.61E-05	1.86E-05	lb		
		1 2-Dichloroethane	3.2E-06	3.06E-06		4.15E-05	4.78E-05	lb		
		1 3-Butadiene	2.9E-05	2.77E-05		8.39E-02	8.40E-02	lb		
		2 2 4-TM-Pentane				1.20E+00	1.20E+00	lb		
		2 2 5-TM-Hexane				1.39E-01	1.39E-01	lb		
		2 3 3-TM-Pentane				2.22E-01	2.22E-01	lb		
		2 3 4-TM-Pentane				2.21E-01	2.21E-01	lb		
		2 3-Dimethylbutane				1.39E-01	1.39E-01	lb		
		2 4-Dimethylphenol				1.01E-07	1.01E-07	lb		
		2-Methyl-2-butene				9.19E-02	9.19E-02	lb		
		2-Methylhexane				1.57E-01	1.57E-01	lb		
		2-Methylpentane				2.84E-01	2.84E-01	lb		
		3-Methylhexane				1.64E-01	1.64E-01	lb		
		3-Methylpentane				1.82E-01	1.82E-01	lb		
		Acenaphthene				9.23E-05	9.23E-05	lb		
		Acenaphthylene				5.20E-04	5.20E-04	lb		
		Acetonitrile				4.29E-06	4.29E-06	lb		
		Acetophenone				2.75E-06	2.75E-06	lb		
		Acreolin	4.29E-07	3.2E-06	1.57E+03	8.21E-03	8.21E-03	lb		
		Aluminum (fume or dust)				2.36E-08	2.36E-08	lb		