fines generated at 10,000 psi., flowing the hydrocarbons over the polysiloxane derived ceramic proppant; and, recovering the hydrocarbons that have flowed over the proppant.

[0061] Yet still further there are provided methods and proppants that may have one or more of the following features: wherein the proppant has an actual density and an apparent density; and the actual density and apparent density are within 5% of each other; wherein the proppant has an actual density and an apparent density; and the actual density and apparent density are the same; wherein the proppant has a specific gravity of less than, a crush test of less than about 1% fines generated at 15,000 psi; wherein the plurality of proppants has at least about 100,000 spherical type proppants; and wherein the plurality of proppants has at least about 1,000,000 spherical type proppants.

[0062] Further there is provided a method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method including: positioning a synthetic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons; the proppant having an apparent specific gravity of less than about 2.5 and a crush test of less than about 1% fines generated at 15,000 psi., flowing the hydrocarbons over the polysiloxane derived ceramic proppant; and, recovering the hydrocarbons that have flowed over the proppant.

[0063] Furthermore, there is provided a method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, including: positioning a ceramic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons; the proppant comprises silicon, oxygen and carbon; and, flowing the hydrocarbons over the proppant; and, recovering the hydrocarbons that have flowed over the proppant.

[0063a] In one aspect, there is provided a method of enhancing conductivity of an offshore well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir located below a sea floor of a body of water associated with the well, the method comprising:

a. pumping a fracturing fluid containing a polysiloxane derived ceramic proppant through a tubular in a riser in a body of water and into a borehole to a subterranean reservoir comprising hydrocarbons;

b. positioning the polysiloxane derived ceramic proppant in a fluid channel in the subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

c. flowing the hydrocarbons over the polysiloxane derived ceramic proppant; and,

d. recovering the hydrocarbons that have flowed over the proppant.

[0063b] In one aspect, there is provided a method of enhancing conductivity of an offshore well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the offshore well, the method comprising:

a. pumping a fracturing fluid containing a synthetic proppant through a tubular in a riser in a body of water and into a borehole in a sea floor of the body of water to a subterranean reservoir comprising hydrocarbons;

b. positioning the synthetic proppant in a fluid channel in the subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

c. the proppant having an apparent specific gravity of less than about 2.5 and and a crush test of less than about 1% fines generated at 10,000 psi.,

d. flowing the hydrocarbons over the proppant; and,

e. recovering the hydrocarbons that have flowed over the proppant.

[0063c] In one aspect, there is provided a method of enhancing conductivity of an offshore well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well and located below a seafloor of a body of water, the method comprising:

a. pumping a fracturing fluid containing a synthetic proppant through a tubular in a riser in a body of water and into a borehole in a sea floor of the body of water to a subterranean reservoir comprising hydrocarbons;

b. the riser having a length of at least about 5,000 feet and the borehole having an MD of at least about 10,000 feet;

c. positioning the synthetic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

d. wherein, the proppant comprises silicon, oxygen and carbon;

e. flowing the hydrocarbons over the proppant; and,

f. recovering the hydrocarbons that have flowed over the proppant.

[0063d] In one aspect, there is provided a method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method comprising:

a. positioning a polysiloxane derived ceramic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons; and,

b. flowing the hydrocarbons over the polysiloxane derived ceramic proppant; and,

c. recovering the hydrocarbons that have flowed over the proppant.

[0063e] In one aspect, there is provided a method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method comprising:

a. positioning a synthetic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

b. the synthetic proppant having an apparent specific gravity of less than about 2 and a crush test of less than about 1% fines generated at 10,000 psi.,

c. flowing the hydrocarbons over the synthetic proppant; and,

d. recovering the hydrocarbons that have flowed over the synthetic proppant.

[0063f] In one aspect, there is provided a method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method comprising:

a. positioning a ceramic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

b. the proppant comprises silicon, oxygen and carbon;

c. flowing the hydrocarbons over the proppant; and,

d. recovering the hydrocarbons that have flowed over the proppant.

[0064] Yet still further there are provided methods and proppants that may have one or more of the following features: wherein the proppant has a specific gravity of less than 2; wherein the proppant has a crush test of less than about 1% fines

What is claimed:

1. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

    a. a plurality of spherical type structures;

    b. at least about 95% of each of the plurality of spherical type structures having a predetermined diameter, and having an apparent specific gravity of less than about 2.5;

    c. the structures comprising a ceramic comprising silicon, oxygen and carbon; and,

    d. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure.

2. The proppant of claim 1, wherein the proppant comprises a neat proppant.

3. The proppant of claim 1, wherein the proppant comprises a filled proppant.

4. The proppant of claim 1, wherein the proppant comprises a filled proppant comprising a filler selected from the group consisting of ceramic powders, glass powders, carbon powders, and graphite powders.

5. The proppant of claim 1, wherein the proppant comprises a filled proppant comprising a filler selected from the group consisting of metal powders, carbide pellets, nanostructures, silica fume, silica, fumed silica, fly ash, cenospheres, aluminum oxide (Al_2O_3), SiC, and polymer derived ceramics.

6. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor selected from the group consisting of methyl hydrogen, siloxane backbone additive, vinyl substituted and vinyl terminated polydimethyl siloxane, vinyl substituted and hydrogen terminated polydimethyl siloxane, allyl terminated polydimethyl siloxane, silanol terminated polydimethyl siloxane, hydrogen terminated polydimethyl siloxane, vinyl terminated diphenyl dimethyl polysiloxane, hydroxyl terminated diphenyl

dimethyl polysiloxane, hydride terminated diphenyl dimethyl polysiloxane, styrene vinyl benzene dimethyl polysiloxane, and tetramethyltetravinylcyclotetrasiloxane.

7. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising methyl hydrogen and a siloxane backbone additive.

8. The proppant of claim 1, wherein the proppant comprises a material resulting from the pyrolysis of a polymeric precursor comprising a backbone having the formula–R_1-Si-C-C-Si-O-Si-C-C-Si-R_2-, where R_1 and R_2 comprise materials selected from the group consisting of methyl, hydroxyl, vinyl and allyl.

9. The proppant of claim 1, wherein the proppant consists essentially of silicon, carbon and oxygen.

10. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising tetramethyltetravinylcyclotetrasiloxane.

11. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising methyl hydrogen, vinyl terminated polydimethyl siloxane, and tetramethyltetravinylcyclotetrasiloxane.

12. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising methyl hydrogen, vinyl terminated polydimethyl siloxane, tetramethyltetravinylcyclotetrasiloxane and a catalyst.

13. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising a methyl terminated hydride substituted polysiloxane.

14. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor selected from the group consisting of a methyl terminated vinyl polysiloxane, a vinyl terminated vinyl polysiloxane, a hydride terminated vinyl polysiloxane, and an allyl terminated dimethyl polysiloxane.

15. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor selected from the group consisting of a vinyl terminated dimethyl polysiloxane, a hydroxy terminated dimethyl polysiloxane, a hydride terminated dimethyl polysiloxane, and a hydroxy terminated vinyl polysiloxane.

16. The proppant of claim 1, wherein wherein the proppant is made from a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups is about 1.12 to 1 to about 2.36 to 1.

17. The proppant of claim 1, wherein wherein the proppant is made from a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups is about 1.50 to 1.

18. The proppant of claim 1, wherein wherein the proppant is made from a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups is about 3.93 to 1.

19. The proppant of claim 1, wherein wherein the proppant is made from a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups is about 5.93 to 1.

20. The proppant of claim 1, wherein the proppant is a spherical proppant.

21. The proppant of claim 1, wherein the proppant is an essentially perfectly spherical proppant.

22. The proppant of claim 1, wherein the proppant a substantially perfectly spherical proppant.

23. The proppant of claim 2, wherein the proppant is a spherical proppant.

24. The proppant of claim 2, wherein the proppant is an essentially perfectly spherical proppant.

25. The proppant of claim 2, wherein the proppant a substantially perfectly spherical proppant.

26. The proppant of claim 8, wherein the proppant is a spherical proppant.

27. The proppant of claim 8, wherein the proppant is an essentially perfectly spherical proppant.

28. The proppant of claim 8, wherein the proppant a substantially perfectly spherical proppant.

29. The proppant of claim 9, wherein the proppant is a spherical proppant.

30. The proppant of claim 9, wherein the proppant is an essentially perfectly spherical proppant.

31. The proppant of claim 9, wherein the proppant a substantially perfectly spherical proppant.

32. The proppant of claim 18, wherein the proppant is a spherical proppant.

33. The proppant of claim 18, wherein the proppant is an essentially perfectly spherical proppant.

34. The proppant of claim 18, wherein the proppant a substantially perfectly spherical proppant.

35. The proppant of claim 1, wherein the plurality comprises at least about 100,000 spherical type structures.

36. The proppant of claim 1, wherein the plurality comprises at least about 1,000,000 spherical type structures.

37. The proppant of claim 1, wherein the predetermined diameter is from about 10 mesh.

38. The proppant of claim 1, wherein the predetermined diameter is from about 20 mesh.

39. The proppant of claim 1, wherein the predetermined diameter is from about 30 mesh.

40. The proppant of claim 1, wherein the predetermined diameter is from about 40 mesh.

41. The proppant of claim 1, wherein the predetermined diameter is from about 70 mesh.

42. The proppant of claim 1, wherein the predetermined diameter has a smaller diameter than about 100 mesh.

43. The proppant of claim 1, wherein the predetermined diameter has a smaller diameter than about 200 mesh.

44. The proppant of claim 1, wherein the proppants have a specific gravity of less about 1.8.

45. The proppant of claim 42, wherein the proppants have a specific gravity of less about 2.0.

46. The proppant of claim 43, wherein the proppants have a specific gravity of less about 2.0.

47. The proppant of claim 1, wherein the proppants have a bulk density of about 1.5 g/cc or less.

48. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of spherical type structures;

b. at least about 95% of each of the plurality having a specific gravity of less than about 2; and,

c. the structures comprising a pyrolized material derived from a precursor comprising a matrix having a backbone of the formula – R_1-Si-C-C-Si-O-Si-C-C-Si-R_2-;

d. where R_1 and R_2 comprise materials selected from the group consisting of methyl, hydroxyl, vinyl and allyl.

49. The proppant of claim 48, wherein the proppant comprises a neat proppant.

50. The proppant of claim 48, wherein the proppant comprises a filled proppant.

51. The proppant of claim 48, wherein the proppant comprises a filled proppant comprising a filler selected from the group consisting of ceramic powders, glass powders, carbon powders, and graphite powders.

52. The proppant of claim 48, wherein the proppant comprises a filled proppant comprising a filler selected from the group consisting of metal powders, carbide pellets, nanostructures, silica fume, silica, fumed silica, fly ash, cenospheres, aluminum oxide (Al_2O_3), SiC, and polymer derived ceramics.

53. The proppant of claim 48, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising tetramethyltetravinylcyclotetrasiloxane; and wherein the proppant is an essentially perfectly spherical proppant.

54. The proppant of claim 48, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising methyl hydrogen, vinyl terminated polydimethyl siloxane, and tetramethyltetravinylcyclotetrasiloxane; and wherein the proppant is a spherical proppant.

55. The proppant of claim 48, wherein the plurality comprises at least about 100,000 spherical type structures.

56. The proppant of claim 48, wherein the plurality comprises at least about 1,000,000 spherical type structures.

57. The proppant of claim 48, wherein the predetermined diameter is smaller than about 10 mesh.

58. The proppant of claim 48, wherein the predetermined diameter is smaller than about 20 mesh.

59. The proppant of claim 48, wherein the predetermined diameter is smaller than about 30 mesh.

60. The proppant of claim 48, wherein the predetermined diameter is smaller than about 40 mesh.

61. The proppant of claim 48, wherein the predetermined diameter is smaller than about 70 mesh.

62. The proppant of claim 48, wherein the predetermined diameter is smaller than about 100 mesh.

63. The proppant of claim 48, wherein the predetermined diameter is smaller than about 200 mesh.

64. The proppant of claim 48, wherein the predetermined diameter is smaller than about 10 mesh and the proppants have an apparent specific gravity of less than about 2.5.

65. The proppant of claim 48, wherein the predetermined diameter is smaller than about 30 mesh and the proppants have an apparent specific gravity of less than about 2.5.

66. The proppant of claim 48, wherein the predetermined diameter is smaller than about 40 mesh and the proppants have an apparent specific gravity of less than about 2.5.

67. The proppant of claim 48, wherein the predetermined diameter is smaller than about 70 mesh and the proppants have an apparent specific gravity of less than about 2.5.

68. The proppant of claim 48, wherein the predetermined diameter is smaller than about 100 mesh and the proppants have an apparent specific gravity of less than about 2.5.

69. The proppant of claim 48, wherein the predetermined diameter is smaller than about 200 mesh and the proppants have an apparent specific gravity of less than about 2.5.

70. The proppant of claim 48, wherein the predetermined diameter is smaller than about 10 mesh and the proppants have an apparent specific gravity of less than about 2.

71. The proppant of claim 48, wherein the predetermined diameter is smaller than about 30 mesh and the proppants have an apparent specific gravity of less than about 2.

72. The proppant of claim 48, wherein the predetermined diameter is smaller than about 40 mesh and the proppants have an apparent specific gravity of less than about 2.

73. The proppant of claim 48, wherein the predetermined diameter is smaller than about 70 mesh and the proppants have an apparent specific gravity of less than about 2.

74. The proppant of claim 48, wherein the predetermined diameter is smaller than about 100 mesh and the proppants have an apparent specific gravity of less than about 2.

75. The proppant of claim 48, wherein the predetermined diameter is smaller than about 200 mesh and the proppants have an apparent specific gravity of less than about 2.

76. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

    a. a plurality of spherical type structures, the structures comprising silicon, oxygen and carbon;

    b. the plurality having a medium particle size distribution and a mean particle size distribution; and,

    c. wherein the medium and the mean are essentially the same.

77. The proppant of claim 76, wherein the medium and the mean have a difference of no greater than 0.010.

78. The proppant of claim 76, wherein the medium and the mean have a difference of no greater than 0.005.

79. The proppant of claim 76, wherein the medium and the mean have a difference of no greater than 0.002.

80. A proppant for use in hydraulically fracturing a well: the proppant having an apparent specific gravity of less than about 2.5 and and a crush test of less than about 1% fines generated at 15,000 psi.

81. The proppant of claim 80, comprising silicon, oxygen and carbon.

82. The proppant of claim 80, consisting essentially of silicon, oxygen and carbon.

83. The proppant of claim 80, consisting of silicon, oxygen and carbon.

84. A proppant for use in hydraulically fracturing a well: the proppant having an apparent specific gravity of less than about 2.0 and and a crush test of less than about 1% fines generated at 10,000 psi.

85. The proppant of claim 84, comprising silicon, oxygen and carbon.

86. The proppant of claim 84, consisting essentially of silicon, oxygen and carbon.

87. The proppant of claim 84, consisting of silicon, oxygen and carbon.

88. A hydraulic fracturing fluid for hydraulically fracturing a well, the fluid comprising: at least about 100,000 gallons of a water, and a synthetic proppant; and, the proppant having an apparent specific gravity of less than about 2.5 and and a crush test of less than about 1% fines generated at 15,000 psi.

89. The hydraulic fracturing fluid of claim 88, wherein the proppant comprises silicon, oxygen and carbon.

90. The hydraulic fracturing fluid of claim 88, wherein the proppant consists essentially of silicon, oxygen and carbon.

91. The hydraulic fracturing fluid of claim 88, wherein the proppant consists of silicon, oxygen and carbon.

92. A hydraulic fracturing fluid for hydraulically fracturing a well, the fluid comprising: at least about 100,000 gallons of a water, and a synthetic proppant; and, the proppant having an apparent specific gravity of less than about 2.0 and and a crush test of less than about 1% fines generated at 10,000 psi.

93. The proppant of claim 88, comprising silicon, oxygen and carbon.

94. The proppant of claim 88, consisting essentially of silicon, oxygen and carbon.

95. A synthetic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of volumetric structures; having an apparent specific gravity of less than about 2.5;

b. the structures comprising silicon, oxygen and carbon;

c. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure; and,

d. wherein the structure comprises a material resulting from the pyrolysis of a polymeric precursor comprising a backbone having the formula–R_1-Si-C-C-Si-O-Si-C-C-Si-R_2-, where R_1 and R_2 comprise materials selected from the group consisting of methyl, hydroxyl, vinyl and allyl.

96. The proppant of claim 95, wherein the specific gravity is less 2.0 or less.

97. The proppant of claim 95, wherein the specific gravity is less than about 1.7.

98. A synthetic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of volumetric structures; having an apparent specific gravity of less than about 2.5;

b. the structures comprising silicon, oxygen and carbon;

c. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure; and,

d. wherein the structure comprises a material resulting from the pyrolysis of a polymeric precursor comprising a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups is about 3.93 to 1.

99. The proppant of claim 98, wherein the specific gravity is less 2.0 or less.

100. The proppant of claim 98, wherein the specific gravity is less than about 1.7.

101. A synthetic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of volumetric structures; having an apparent specific gravity of less than about 2.5;

b. the structures comprising silicon, oxygen and carbon;

c. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure; and,

d. wherein the structures have an actual density and an apparent density; and the actual density and apparent density are within 5% of each other.

102. The proppant of claim 101, wherein the specific gravity is less 2.0 or less.

103. The proppant of claim 101, wherein the specific gravity is less than about 1.7.

104. A synthetic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of volumetric structures; having an apparent specific gravity of less than about 2.5;

b. the structures comprising silicon, oxygen and carbon;

c. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure; and,

d. wherein the structures have an actual density and an apparent density; and the actual density and apparent density are essentially the same.

105. The proppant of claim 104, wherein the specific gravity is less 2.0 or less.

106. The proppant of claim 104, wherein the specific gravity is less than about 1.7.

107. The proppant of claim 104, wherein the structures are spherical.

108. The proppant of of claim 104, wherein the structures are essentially perfectly spherical.

109. The proppant of claim 104, wherein the structures are substantially perfectly spherical proppant.

110. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of volumetric structures;

b. at least about 95% of each of the plurality having a specific gravity of less than about 2; and,

c. the structures comprising a pyrolized material derived from a precursor comprising a matrix having a backbone of the formula – R_1-Si-C-C-Si-O-Si-C-C-Si-R_2-;

d. where R_1 and R_2 comprise materials selected from the group consisting of methyl, hydroxyl, vinyl and allyl.

111. The proppant of claim 110, wherein the structures are spherical.

112. The proppant of of claim 110, wherein the structures are essentially perfectly spherical.

113. The proppant of claim 110, wherein the structures are substantially perfectly spherical proppant.

114. The proppant of claim 95, wherein the structures are spherical.

115. The proppant of of claim 95, wherein the structures are essentially perfectly spherical.

116. The proppant of claim 95, wherein the structures are substantially perfectly spherical proppant.

117. The proppant of claim 98, wherein the structures are spherical.

118. The proppant of of claim 98, wherein the structures are essentially perfectly spherical.

119. The proppant of claim 98, wherein the structures are substantially perfectly spherical proppant.

120. The proppant of claim 101, wherein the structures are spherical.

121. The proppant of of claim 101, wherein the structures are essentially perfectly spherical.

122. The proppant of claim 101, wherein the structures are substantially perfectly spherical proppant.

123. The fluid of claim 88, wherein the structures are spherical.

124. The fluid of of claim 88, wherein the structures are essentially perfectly spherical.

125. The fluid of claim 88, wherein the structures are substantially perfectly spherical proppant.

126. The fluid of claim 92, wherein the structures are spherical.

127. The fluid of of claim 92, wherein the structures are essentially perfectly spherical.

128. The fluid of claim 92, wherein the structures are substantially perfectly spherical proppant.

What is claimed:

1. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

    a. a plurality of spherical type structures;

    b. at least about 95% of each of the plurality of spherical type structures having a predetermined diameter, and having an apparent specific gravity of less than about 2.5;

    c. the structures comprising a ceramic comprising silicon, oxygen and carbon; and,

    d. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure.

2. The proppant of claim 1, wherein the proppant comprises a neat proppant.

3. The proppant of claim 1, wherein the proppant comprises a filled proppant.

4. The proppant of claim 1, wherein the proppant comprises a filled proppant comprising a filler selected from the group consisting of ceramic powders, glass powders, carbon powders, and graphite powders.

5. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor selected from the group consisting of methyl hydrogen, siloxane backbone additive, vinyl substituted and vinyl terminated polydimethyl siloxane, vinyl substituted and hydrogen terminated polydimethyl siloxane, allyl terminated polydimethyl siloxane, silanol terminated polydimethyl siloxane, hydrogen terminated polydimethyl siloxane, vinyl terminated diphenyl dimethyl polysiloxane, hydroxyl terminated diphenyl dimethyl polysiloxane, hydride terminated diphenyl dimethyl polysiloxane, styrene vinyl benzene dimethyl polysiloxane, and tetramethyltetravinylcyclotetrasiloxane.

6. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a precursor comprising methyl hydrogen and a siloxane backbone additive.

7. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups from about 1.12 to 1 to about 2.36 to 1.

8. The proppant of claim 1, wherein the proppant is made from a polysilocarb batch comprising a molar ratio of hydride groups to vinyl groups of about 1.50 to 1.

9. The proppant of claim 1, wherein the proppant is a spherical proppant.

10. The proppant of claim 1, wherein the proppant is an essentially perfectly spherical proppant.

11. The proppant of claim 1, wherein the proppant a substantially perfectly spherical proppant.

12. The proppant of claim 2, wherein the proppant is a spherical proppant.

13. The proppant of claim 7, wherein the proppant is an essentially perfectly spherical proppant.

14. The proppant of claim 1, wherein the plurality comprises at least about 100,000 spherical type structures.

15. The proppant of claim 1, wherein the plurality comprises at least about 1,000,000 spherical type structures.

16. The proppant of claim 1, wherein the predetermined diameter is about 10 mesh and smaller.

17. The proppant of claim 1, wherein the predetermined diameter is from about 20 mesh to about 40 mesh.

18. The proppant of claim 1, wherein the predetermined diameter is about 80 mesh and smaller.

19. The proppant of claim 1, wherein the proppants have a specific gravity of less about 1.8.

20. The proppant of claim 1, wherein the proppants have a specific gravity of less about 2.0.

21. The proppant of claim 1, wherein the proppants have a bulk density of about 1.5 g/cc or less.

22. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

    a. a plurality of spherical type structures;

    b. at least about 95% of each of the plurality having a specific gravity of less than about 2; and,

    c. the structures comprising a pyrolized material derived from a precursor comprising a matrix having a backbone of the formula – R_1-Si-C-C-Si-O-Si-C-C-Si-R_2-;

    d. where R_1 and R_2 comprise materials selected from the group consisting of methyl, hydroxyl, vinyl and allyl.

23. The proppant of claim 22, wherein the proppant comprises a filled proppant comprising a filler selected from the group consisting of ceramic powders, glass powders, carbon powders, and graphite powders.

24. The proppant of claim 22, wherein the plurality comprises at least about 100,000 spherical type structures.

25. The proppant of claim 22, wherein the predetermined diameter is smaller than about 20 mesh and the proppants have an apparent specific gravity of less than about 2.

26. A polysiloxane derived ceramic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of spherical type structures, the structures comprising silicon, oxygen and carbon;

b. the plurality having a medium particle size distribution and a mean particle size distribution; and,

c. wherein the medium and the mean are essentially the same.

27. The proppant of claim 26, wherein the medium and the mean have a difference of no greater than 0.010.

28. The proppant of claim 26, wherein the medium and the mean have a difference of no greater than 0.005.

29. The proppant of claim 26, wherein the medium and the mean have a difference of no greater than 0.002.

30. A proppant for use in hydraulically fracturing a well: the proppant having an apparent specific gravity of less than about 2.5 and a crush test of less than about 1% fines generated at 15,000 psi.

31. The proppant of claim 30, comprising silicon, oxygen and carbon.

32. A proppant for use in hydraulically fracturing a well: the proppant having an apparent specific gravity of less than about 2.0 and and a crush test of less than about 1% fines generated at 10,000 psi.

33. A hydraulic fracturing fluid for hydraulically fracturing a well, the fluid comprising: at least about 100,000 gallons of a water, and a synthetic proppant; and, the proppant having an apparent specific gravity of less than about 2.5 and and a crush test of less than about 1% fines generated at 15,000 psi.

34. A synthetic proppant for use in hydraulic fracturing operations for the recovery of hydrocarbons from a subterranean formation, the proppant comprising:

a. a plurality of volumetric structures; having an apparent specific gravity of less than about 2.5;

b. the structures comprising silicon, oxygen and carbon;

c. the structures having a crushed fines mass percent of less than about 10 at 4 lbs/ft2 @ 4,000 psi; and a short term conductivity of at least about 8,000 MD-FT at 10,000 psi closure; and,

d. wherein the structure comprises a material resulting from the pyrolysis of a polymeric precursor comprising a backbone having the formula–R_1-Si-C-C-Si-O-Si-C-C-Si-R_2-, where R_1 and R_2 comprise materials selected from the group consisting of methyl, hydroxyl, vinyl and allyl.

35. A method of enhancing conductivity of an offshore well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir located below a sea floor of a body of water associated with the well, the method comprising:

a. pumping a fracturing fluid containing a polysiloxane derived ceramic proppant through a tubular in a riser in a body of water and into a borehole to a subterranean reservoir comprising hydrocarbons;

b. positioning the polysiloxane derived ceramic proppant in a fluid channel in the subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

c. flowing the hydrocarbons over the polysiloxane derived ceramic proppant; and,

d. recovering the hydrocarbons that have flowed over the proppant.

36. The method of claim 35, wherein the proppant has a specific gravity of less than about 2.

37. The method of claim 35, wherein the riser has a length of at least about 5,000 feet.

38. The method of claim 35, wherein the proppant has a specific gravity of less than about 2, a strength of at least about 7,000 psi, and the riser has a length of at least about 5,000 feet; and the fluid channel is located at a measure depth for the borehole of at least about 10,000 feet.

39. A method of enhancing conductivity of an offshore well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the offshore well, the method comprising:

a. pumping a fracturing fluid containing a synthetic proppant through a tubular in a riser in a body of water and into a borehole in a sea floor of the body of water to a subterranean reservoir comprising hydrocarbons;

b. positioning the synthetic proppant in a fluid channel in the subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

c. the proppant having an apparent specific gravity of less than about 2.5 and and a crush test of less than about 1% fines generated at 10,000 psi.,

d. flowing the hydrocarbons over the proppant; and,

e. recovering the hydrocarbons that have flowed over the proppant.

40. A method of enhancing conductivity of an offshore well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well and located below a seafloor of a body of water, the method comprising:

a. pumping a fracturing fluid containing a synthetic proppant through a tubular in a riser in a body of water and into a borehole in a sea floor of the body of water to a subterranean reservoir comprising hydrocarbons;

b. the riser having a length of at least about 5,000 feet and the borehole having an MD of at least about 10,000 feet;

c. positioning the synthetic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

d. wherein, the proppant comprises silicon, oxygen and carbon;

e. flowing the hydrocarbons over the proppant; and,

f. recovering the hydrocarbons that have flowed over the proppant.

41. The method of claim 40, wherein the proppant has a specific gravity of less than 2.

42. The method of claim 40, wherein the proppant has a crush test of less than about 1% fines generated at 15,000 psi.

43. A method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method comprising:

a. positioning a polysiloxane derived ceramic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons; and,

b. flowing the hydrocarbons over the polysiloxane derived ceramic proppant; and,

c. recovering the hydrocarbons that have flowed over the proppant.

44. A method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method comprising:

a. positioning a synthetic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

b. the synthetic proppant having an apparent specific gravity of less than about 2 and a crush test of less than about 1% fines generated at 10,000 psi.,

c. flowing the hydrocarbons over the synthetic proppant; and,

d. recovering the hydrocarbons that have flowed over the synthetic proppant.

45. A method of enhancing conductivity of a well to increase the recovery of hydrocarbons from a subterranean hydrocarbon reservoir associated with the well, the method comprising:

a. positioning a ceramic proppant in a fluid channel in a subterranean reservoir comprising hydrocarbons, whereby the proppant is in fluid association with the hydrocarbons;

b. the proppant comprises silicon, oxygen and carbon;

c. flowing the hydrocarbons over the proppant; and,

d. recovering the hydrocarbons that have flowed over the proppant.

46. The method of claim 45, wherein the hydrocarbon is crude oil and the formation is a shale formation.