CLAIMS

What is claimed is:

1. A naphtha boiling range composition comprising a T90 distillation point of 221°C or less, an aromatics content of 10 wt% to 23 wt%, a weight ratio of paraffins to aromatics of 1.4 or more, a sulfur content of 30 wppm or less, and a weight ratio of mercaptan sulfur to total sulfur of 0.10 to 0.90.

2. The composition of claim 1, wherein the composition comprises a weight ratio of isoparaffins to aromatics of 1.3 or more.

3. The composition of claim 1, wherein the composition comprises a hydrogen content of 13.3 wt% or more.

4. The composition of claim 1, wherein the composition comprises a research octane number (RON) of 85 or more.

5. The composition of claim 1, wherein the composition comprises a research octane number (RON) of 89 or more, or wherein the composition comprises a (RON + MON) / 2 value of 85 or more, or a combination thereof.

6. The composition of claim 1, wherein the composition comprises a T90 distillation point of 200°C or less.

7. The composition of claim 1, wherein the composition comprises a nitrogen content of 5.0 wppm or less.

8. A total effluent from an FCC process comprising a combined weight of a naphtha boiling range portion and a distillate boiling range portion of 65 wt% or more relative to a weight of the total effluent, 10 wt% or more of C_4 hydrocarbons relative to the weight of the total effluent, and a ratio of C_3 olefins to total C_3 hydrocarbons of 0.84 or more,

wherein the naphtha boiling range portion comprises a T90 distillation point of 221°C or less, an aromatics content of 10 wt% to 23 wt% relative to a weight of the naphtha boiling range portion, a weight ratio of paraffins to aromatics of 1.4 or more, a sulfur content of 30 wppm or less, and a weight ratio of mercaptan sulfur to total sulfur of 0.10 to 0.90.

9. The total effluent of claim 8, wherein the total effluent comprises 12 wt% or less of 340°C+ bottoms.

10. The total effluent of claim 8, wherein the naphtha boiling range portion comprises 60 wt% or more of the total effluent.

11. The total effluent of claim 8, wherein the total effluent comprises 1.5 wt% or less of H_2, C_1 hydrocarbons, and C_2 hydrocarbons.

12. The total effluent of claim 8, wherein the total effluent comprises a combined weight of the naphtha boiling range portion and the distillate boiling range portion of 72 wt% or more.

13. The total effluent of claim 8, wherein the total effluent comprises a ratio of C_2 olefins to total C_2 hydrocarbons of 0.54 or more.

14. A method for performing fluid catalytic cracking, comprising:

exposing a feed to a cracking catalyst under fluid catalytic cracking conditions comprising 60 wt% or more conversion relative to 221°C to form coke and a total effluent,

the feed comprising 25 wt% or more of a vacuum gas oil boiling range fraction,

wherein the vacuum gas oil boiling range fraction comprises 10 wt% or more of aromatics, a naphthenes to aromatics weight ratio of 1.5 or higher, and a sulfur content of 1200 wppm or less,

and wherein the total effluent comprises a naphtha boiling range portion, the naphtha boiling range portion comprising a sulfur content of 30 wppm or less relative to a weight of the naphtha boiling range portion, a ratio of mercaptan sulfur to total sulfur of 0.1 to 0.9, an aromatics content of 10 wt% or more relative to a weight of the naphtha boiling range portion, and a weight ratio of paraffins to aromatics of 1.0 or more.

15. The method of claim 14, wherein a combined yield of coke, H_2, C_1 hydrocarbons, and C_2 hydrocarbons of 5.0 wt% or less relative to a weight of the feed.

16. The method of claim 14, wherein the feed comprises an atmospheric resid, the atmospheric resid comprising the 25 wt% or more of the vacuum gas oil boiling range fraction.