CLAIMS:

1. A method for upgrading an asphalt feed, comprising:

receiving an asphalt feed comprising an asphaltene-depleted crude fraction, the asphaltene-depleted crude fraction including at least 20 wt% less asphaltenes than the corresponding raw crude, wherein the asphaltene-depleted crude is formed by performing a paraffinic froth treatment on a raw crude or crude fraction; and

oxidizing the asphalt feed by air blowing under effective conditions to achieve an increase of a maximum PG temperature in the corresponding asphalt of at least 15°C, the minimum PG temperature increasing by 6°C or less.

~~2. A method for upgrading an asphalt feed, comprising: receiving an asphalt feed comprising an asphaltene-depleted crude fraction, the asphaltene-depleted crude fraction including at least 20 wt% less asphaltenes than the corresponding raw crude; and oxidizing the asphalt feed by air blowing under effective conditions to achieve an increase of a maximum PG temperature in the corresponding asphalt of at least 15°C, the ratio of the increase of the maximum PG temperature to an increase in the corresponding minimum PG temperature being at least 5 to 2.~~

~~3.~~2. The method of ~~claims~~ claim 1 ~~or 2~~, wherein the asphalt is oxidized under effective conditions to achieve an increase of the maximum PG temperature in the corresponding asphalt of at least 18°C.

~~4. A method for upgrading an asphalt feed, comprising: receiving an asphalt feed comprising at least an asphaltene-depleted crude fraction, the asphaltene-depleted crude fraction including 20 wt% less asphaltenes than the corresponding raw crude; oxidizing the asphalt feed by air blowing under effective conditions to achieve an increase of a maximum PG temperature of 10°C, a corresponding minimum PG temperature increasing by a first amount; and oxidizing the asphalt feed by air blowing under effective conditions to achieve an additional increase of the maximum PG temperature in the corresponding asphalt of at least 5°C, a ratio of the additional~~

~~increase of the maximum PG temperature to an additional increase of the corresponding minimum PG temperature being at least 5 to 3.~~

~~5. The method of claim 4, wherein the ratio of the additional increase of the maximum PG temperature to the additional increase of the corresponding minimum PG temperature is at least 2 to 1.~~

~~6.~~3. The method of ~~any of the preceding claims~~ claim 1, wherein receiving an asphalt feed comprises:

receiving a feedstock comprising one or more crude fractions, wherein at least one of the one or more crude ~~fraction being~~ fractions is the asphaltene-depleted crude fraction; and

distilling the feedstock to form at least the asphalt feed.

~~7.~~4. The method of claim ~~6~~ 3, wherein the asphalt feed comprises a bottom fraction from the distillation.

~~8.~~5. The method of ~~claims 6 or 7~~ claim 3, wherein the feedstock ~~comprising one or more crude fractions~~ comprises at least 25 wt% of the asphaltene-depleted crude fraction.

~~9.~~6. The method of ~~any of the preceding claims~~ claim 1, wherein the asphalt feed comprises at least 25 wt% of the asphaltene-depleted crude fraction~~, preferably at 35 wt% or at least 45 wt%~~.

~~10.~~7. The method of ~~any of the preceding claims~~ claim 1, wherein the asphaltenes correspond to asphaltenes that are insoluble in n-pentane, n-heptane, or a C_5-C_8 alkane.

~~11.~~8. The method of ~~any of the preceding claims~~ claim 1, wherein the asphaltene-depleted crude includes at least ~~25~~ 45 wt% less asphaltenes than the corresponding raw crude~~, preferably at least 35 wt% less or at least 45 wt% less~~.

~~12. The method of any of the preceding claims, wherein the asphaltene-depleted crude is formed by performing a paraffinic froth treatment on a raw crude or crude fraction.~~

~~13.~~9. The method of any of the ~~preceding~~ above claims, wherein the effective conditions include an asphalt feed temperature of 125°C to 300°C, an oxidizing temperature of 150°C to 300°C, and an oxidizing pressure of 0 barg to 10 barg.

10. A method for upgrading an asphalt feed, comprising:

receiving an asphalt feed comprising at least an asphaltene-depleted crude fraction, the asphaltene-depleted crude fraction including 20 wt % less asphaltenes than the corresponding raw crude, wherein the asphaltene-depleted crude is formed by performing a paraffinic froth treatment on a raw crude or crude fraction;

oxidizing the asphalt feed by air blowing under effective conditions to achieve an increase of a maximum PG temperature of 10°C, a corresponding minimum PG temperature increasing by a first amount to form an oxidized asphalt feed; and

further oxidizing the oxidized asphalt feed by air blowing under effective conditions to achieve an additional increase of the maximum PG temperature in the corresponding asphalt of at least 5°C, a ratio of the additional increase of the maximum PG temperature to an additional increase of the corresponding minimum PG temperature being at least 5 to 3.

11. The method of claim 10, wherein the ratio of the additional increase of the maximum PG temperature to the additional increase of the corresponding minimum PG temperature is at least 2 to 1.

12. The method of claim 10, wherein receiving an asphalt feed comprises:

receiving a feedstock comprising one or more crude fractions, wherein at least one of the one or more crude fractions is the asphaltene-depleted crude fraction; and

distilling the feedstock to form at least the asphalt feed.

13. The method of claim 12, wherein the asphalt feed comprises a bottom fraction from the distillation.

14. The method of claim 12, wherein the feedstock comprises at least 25 wt % of the asphaltene-depleted crude fraction.

15. The method of claim 10, wherein the asphaltenes correspond to asphaltenes that are insoluble in n-pentane, n-heptane, or a C_5-C_8 alkane.

16. The method of claim 10, wherein the asphaltene-depleted crude includes at least 45 wt % less asphaltenes than the corresponding raw crude.

17. A method for upgrading an asphalt feed, comprising:

receiving an asphalt feed comprising an asphaltene-depleted crude fraction, the asphaltene-depleted crude fraction including at least 20 wt % less asphaltenes than the corresponding raw crude, wherein the asphaltene-depleted crude is formed by performing a paraffinic froth treatment on a raw crude or crude fraction; and

oxidizing the asphalt feed by air blowing under effective conditions to achieve an increase of a maximum PG temperature in the corresponding asphalt of at least 15°C, the ratio of the increase of the maximum PG temperature to an increase in the corresponding minimum PG temperature being at least 5 to 2.

18. The method of claim 17, wherein the asphalt is oxidized under effective conditions to achieve an increase of the maximum PG temperature in the corresponding asphalt of at least 18°C.