CLAIMS:

1. An asphalt mix composition, comprising:

a binder comprising a heavy oil fraction having a T5 boiling point of at least about 350ºC, the heavy oil fraction being about 3 to 10 wt% of the asphalt mix composition;

a particulate aggregate; and

tailings particles from a paraffinic froth treatment, at least 20 wt% of a weight of the tailings particles comprising asphaltenes, the tailings particles comprising at least about 10 wt% of particles having a particle size of less than 0.15 mm in the asphalt mix composition, the tailings particles comprising about 0.5 wt% to about 10 wt% of the asphalt mix composition.

2. The asphalt mix composition of claim 1, wherein the asphaltenes from the tailings and at least a portion of the heavy oil fraction are derived from the same crude oil source.

3. The asphalt mix composition of claim 1, wherein the asphaltenes are C5 asphaltenes.

4. The asphalt mix composition of claim 1, wherein the tailings comprise at least about 5 wt% Si.

5. The asphalt mix composition of claim 1, wherein the tailings particles comprise at least about 20 wt% of particles having a particle size of less than 0.15 mm in the asphalt mix composition.

6. The asphalt mix composition of claim 1, wherein the tailings particles comprise at least about 75 wt% of particles having a particle size of less than 0.15 mm in the asphalt mix composition.

7. The asphalt mix composition of claim 1, wherein the tailings particles comprise at least about 50 wt% of particles having a particle size of less than 0.075 mm in the asphalt mix composition.

8. The asphalt mix composition of claim 1, wherein the tailings particles comprise at least about 90 wt% of particles having a particle size of less than 0.075 mm in the asphalt mix composition.

9. The asphalt mix composition of claim 1, wherein at least 25 wt% of the weight of the tailings particles comprises asphaltenes.

10. The asphalt mix composition of claim 1, wherein the heavy oil fraction has a T5 boiling point of at least about 400ºC.

11. The asphalt mix composition of claim 1, wherein the tailings particles comprise about 1 wt% to about 10 wt% of the asphalt mix composition.

12. The asphalt mix composition of claim 1, wherein the tailings particles comprise about 1 wt% to about 5 wt% of the asphalt mix composition.

13. The asphalt mix composition of claim 1, wherein the asphalt mix composition further comprises one or more additives.

14. The asphalt mix composition of claim 13, wherein the asphalt mix composition comprises an antistrip additive.

15. The asphalt mix composition of claim 1, wherein the particulate aggregate comprises a remaining portion of the asphalt mix composition.

16. A method for forming an asphalt mix composition, comprising:

providing a binder comprising a heavy oil fraction having a T5 boiling point of at least about 350ºC, the heavy oil fraction being about 3 to 10 wt% of the asphalt mix composition;

mixing the binder with a particulate aggregate; and

mixing the binder with tailings particles from a paraffinic froth treatment, at least 20 wt% of a weight of the tailings particles comprising asphaltenes, the tailings particles comprising at least about 10 wt% of particles having a particle size of less than 0.15 mm in the asphalt mix composition, the tailings particles comprising about 0.5 wt% to about 10 wt% of the asphalt mix composition.

17. The method of claim 16, wherein the asphaltenes from the tailings and at least a portion of the heavy oil fraction are derived from the same crude oil source.

18. The method of claim 16, wherein the tailings comprise at least about 5 wt% Si.

19. The method of claim 16, wherein the tailings particles comprise at least about 20 wt% of particles having a particle size of less than 0.15 mm in the asphalt mix composition.

20. The method of claim 16, wherein the tailings particles comprise at least about 90 wt% of particles having a particle size of less than 0.075 mm in the asphalt mx composition.