CLAIMS:

1. A method for making lubricant base stock, comprising:

performing solvent deasphalting using a C_{4+} solvent under effective solvent deasphalting conditions on a feedstock having a T5 boiling point of at least 370°C (or at least 400°C, or at least 450°C, or at least 500°C), the effective solvent deasphalting conditions producing a yield of deasphalted oil of at least 50 wt% of the feedstock;

hydroprocessing at least a portion of the deasphalted oil under first effective hydroprocessing conditions to form a hydroprocessed effluent, the at least a portion of the deasphalted oil having an aromatics content of at least 50 wt% and a sulfur content of at least 500 wppm, the hydroprocessing including a first hydrocracking of the deasphalted oil to convert a first wt% relative to 370°C, the first wt% being 30 wt% to 70 wt%, and reducing sulfur content to 200 wppm or less and;

separating the hydroprocessed effluent to form at least a fuels boiling range fraction and a bottoms fraction; and

hydroprocessing at least a portion of the hydroprocessed bottoms fraction under second effective hydroprocessing conditions to convert a second wt% relative to 370°C, the second wt% being 10 wt% to 70 wt%, the second effective hydroprocessing conditions comprising second hydrocracking conditions and catalytic dewaxing conditions, to form a catalytically dewaxed effluent,

wherein a combined conversion of the at least a portion of the deasphalted oil from the first effective hydroprocessing conditions and the second effective hydroprocessing conditions is at least 50 wt% relative to 370°C, , and

wherein the catalytically dewaxed effluent comprises a 950°F+ (510°C+) portion having a VI of at least 80 and a pour point of -6°C or less.

2. The method of claim 1, wherein the second wt% conversion relative to 370°C is 10 wt% to 40 wt%, or wherein the second wt% conversion relative to 370°C is 40 wt% to 70 wt%.

3. The method of claim 1 or claim 2, wherein the at least one of the hydroprocessed effluent and the at least a portion of the hydroprocessed bottoms fraction comprises less than 300 wppm sulfur (or less than 100 wppm sulfur, or less than 50 wppm sulfur), less than 100 wppm nitrogen (or less than 50 wppm nitrogen),

or a combination thereof.

4. The method of any one of claims 1-3, wherein the 950°F+ (510°C+) portion has a VI of 100 to 120, or 110 to 120, or wherein the 950°F+ (510°C+) portion has a VI 120, or at least 125, or at least 130.

5. The method of any one of claims 1 to 4, wherein the 950°F+ (510°C+) portion has a kinematic viscosity at 100°C of 28 cSt to 35 cSt, or wherein the 950°F+ (510°C+) portion has a kinematic viscosity at 100°C of 38 cSt to 45 cSt.

6. The method of any one of claims 1 to 5, a combined conversion of the at least a portion of the deasphalted oil from the first effective hydroprocessing conditions and the second effective hydroprocessing conditions is at least 75 wt% relative to 566°C, wherein the first conversion conditions comprise a first wt% conversion relative to 566°C of 50 wt% to 80 wt%, or a combination thereof.

7. The method of any one of claims 1 to 6, wherein the method further comprises at least one of

a) solvent extracting at least a portion of the catalytically dewaxed effluent to form a solvent processed effluent,

b) solvent dewaxing at least a portion of the catalytically dewaxed effluent to form a solvent processed effluent, wherein the catalytically dewaxed effluent is underdewaxed,

wherein the 950°F+ (510°C+) portion comprises a cloud point of -2°C or less.

8. The method of any one of claims 1 to 7, wherein the 950°F+ (510°C+) portion has a difference between a cloud point temperature and a pour point temperature of 25°C or less, or 15°C or less, or 10°C or less, or 6°C or less; or wherein the 950°F+ (510°C+) portion has a pour point of -10°C or less, or -15°C or less; or wherein the 950°F+ portion has a cloud point of -5°C or less, or -10°C or less; or a combination thereof.

9. The method of any one of claims 1 to 8, wherein the yield of deasphalted oil is at least 55 wt%, or at least 60 wt%, or at least 65 wt%, or at least 70 wt%, or at least 75 wt%; or wherein the deasphalted oil has an aromatics content of at least 55 wt%, or at least 60 wt%, or at least 65 wt%, or at least 70 wt% based on a weight of the deasphalted oil; or a combination thereof.

10. The method of any one of claims 1 to 9, wherein hydroprocessing at least a portion of the deasphalted oil comprises demetallizing the at least a portion of the deasphalted oil.

11. The method of any one of claims 1 to 10, wherein the deasphalted oil is hydrocracked over a hydrocracking catalyst under effective hydrocracking conditions, the hydrocracking catalyst containing a sulfided base metal on an acidic support, the effective hydrocracking conditions including a temperature of from 550°F (288°C) to 840°F (449°C), a hydrogen partial pressures of from 1500 psig to 5000 psig (10.3 MPag to 34.6 MPag), a liquid hourly space velocity of from 0.05 h^{-1} to 10 h^{-1}, and a hydrogen treat gas rate of from 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

12. The method of any one of claims 1 to 11, wherein the at second hydrocracking conditions include hydrocracking over a hydrocracking catalyst under effective hydrocracking conditions, the hydrocracking catalyst containing a sulfided base metal on an acidic support, the effective hydrocracking conditions including a temperature of from 500°F (260°C) to 840°F (449°C), a hydrogen partial pressure of from 1500 psig to 5000 psig (10.3 MPag to 34.6 MPag), a liquid hourly space velocity of from 0.05 h^{-1} to 10 h^{-1}, and a hydrogen treat gas rate of from 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

13. The method of any one of claims 1 to 12, wherein the catalytically dewaxing conditions include catalytically dewaxing over a dewaxing catalyst under effective catalytic dewaxing conditions, the dewaxing catalyst containing a metal hydrogenation component and a molecular sieve, the effective catalytic dewaxing conditions including a temperature of from 280°C to 450°C, a hydrogen partial

pressure of from 3.5 MPag to 34.6 MPag (500 psig to 5000 psig), and a hydrogen circulation rate of from 178 m^3/m^3 (1000 SCF/B) to 1781 m3/m3 (10,000 scf/B).