8.4 **Engineering and product overview: Red Leaf Resources EcoShale In-Capsule Process**

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At the 29th Oil Shale Symposium, Red Leaf Resources reported on the initial findings from its field pilot test of the Ecoshale™ In-Capsule Process. The test of the EcoShale™ In-Capsule technology was carried out in the Uintah Basin in Utah. The field pilot test validated the technology modeling and engineering design aspects. The process produced a high quality product in the form of a prompt oil with an API gravity of 29°, containing ~65% paraffin + naphtha components, and about 12.6% hydrogen. A condensate liquid was also produced with an approximate API gravity of 39°, containing ~55% paraffin + naphtha, and about 12.9% hydrogen. The sulfur content was approximately 2,200 ppm and nitrogen content was about 1 – 1.2 wt%. The oil produced contained almost no entrained solid fines from the shale ore. Red Leaf Resources anticipates that the EcoShale™ In-Capsule Process will be scalable for the levels of oil production specific to specific resource properties. Over the last year, Red Leaf Resources has continued with evaluation of its process engineering and product outputs. Additionally, Red Leaf Resources has engaged in the detailed frontend engineering design (FEED) process to move the process from demonstration to commercialization. This paper and presentation for this year's Oil Shale Symposium will focus on the FEED analysis and updates from further studies regarding the characterization of the produced feedstock. A companion presentation will focus on economic elements related to the process.