

The Lower Smackover Brown Dense Lime Trend

Presenter: Steve Walkinshaw

Interest in the Brown Dense Lime Trend is increasing as several operators attempt to establish its viability as an unconventional oil resource play. Currently, most of the industry attention has been focused on the Southwest Arkansas / North Louisiana area, where drilling activity has been quite active in the past 3-4 years. However, trend leasing has also intensified elsewhere, and the focus now includes West-Central Mississippi as well as other adjacent areas.



Flaring of gas during post-frac flowback of the #1 Garrett, Southwestern's Second BDL Lateral, drilled in Lick Creek Field, Claiborne Parish (source: Facebook, photographer unknown)

The **Brown Dense Lime** is the most prolific source rock in the U.S. Gulf Coast, and has already produced large volumes of oil, gas and condensate from in-situ porous reservoirs encountered in many areas, especially Southeast Mississippi and South Alabama. The Brown Dense Lime represents a “**hybrid**” unconventional play; from a “conventional” standpoint, there are many different types of porosity that can develop within the heterogeneous Brown Dense Lime, and operators exploring the Trend should also take into account the possibility of encountering minor amounts of H₂S within the oil and condensate windows, but not be discouraged from developing potentially prolific, porous reservoirs. It is important to understand the profound impact of the ancestral Mississippi River upon the enrichment of organic content, the development of sandstone porosity (“storage”), and the distribution of H₂S within the Brown Dense Lime. The trend remains essentially undeveloped, and lightly explored.



Steve Walkinshaw, President, Vision Exploration LLC



Steve Walkinshaw is a graduate of Millsaps College and the President of Vision Exploration LLC, based in Madison, Mississippi (Madison is located immediately north of Jackson, the capitol; most of the oil & gas industry that had formerly officed in downtown Jackson has resettled in the Madison-Ridgeland area in the past few years). He began his full-time career in the oil business in 1981, serving as District Geologist for Hughes Eastern Corp. for nine years. In 1989 Steve founded and managed Cougar Exploration, a successful business unit of Paramount Petroleum, until it was acquired by Nuevo Energy in 1992. He remained employed by Nuevo until 1996, after which he was invited by Dudley Hughes to return as Exploration Manager of Hughes-Rawls International (HRI), and was later promoted to Executive Vice-President. In July 2000, Steve left Hughes-Rawls and founded Vision Exploration, which has become one of the most active non-operating independents in the state of Mississippi.

Steve Walkinshaw has many oil and gas discoveries and successful field redevelopment projects to his credit, primarily in South and East Louisiana, Mississippi and Alabama. Steve is a Registered Professional Geologist in Mississippi and Louisiana; a 30-year member of AAPG, a DPA Certified Petroleum Geologist, and a member of AIPG and IPAA. In addition to his past service as Secretary, Treasurer and President, he has served as Webmaster for the Mississippi Geological Society (having built the Society's website) since 2002. Steve is also a long-standing member of the State Mapping Advisory Committee (SMAC) of Mississippi, which serves to annually review, discuss and approve the ongoing surface mapping efforts of the Mississippi DEQ Office of Geology.

In 2002, Steve was honored by NOGS as the recipient of the Society's Best Paper Award for 2001. Steve's presentation was entitled "Magma, Salt and the Chicxulub Impact: Intriguing Implications for the End of the Cretaceous in the Mississippi Embayment". On May 16, 2012, Steve Walkinshaw served as Presenter for the Lower Smackover Brown Dense Unconventional Oil Trend at Hart Energy's Third Annual [DUO \(Developing Unconventional Oil\) Conference](#), held in Denver, Colorado. The title of the presentation was "[The Lower Smackover Brown Dense Lime Trend: A View From 30,000 Feet](#)". Since the DUO Conference, Steve has reprised his Brown Dense Lime presentation (in a greatly expanded format) before many regional Gulf Coast Geological Societies, including the [Shreveport Geological Society \(SGS\)](#), the [Lafayette Geological Society \(LGS\)](#), the [New Orleans Geological Society \(NOGS\)](#), and the [Mississippi Geological Society \(MGS\)](#); as well as the [Mississippi Association of Petroleum Landmen \(MAPL\)](#) and the [Emerging Shale Plays USA 2013 and 2014 Conferences](#), held in Houston, Texas.

More information about the Smackover Formation, including the Lower Smackover Brown Dense Limestone, can be viewed online at Vision Exploration's website, www.visionexploration.com.