

# SOLUTION MINING RESEARCH INSTITUTE

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MEETING  
PAPER



## XRAL STORAGE & TERMINALING CO.

A STATE OF THE ART LIGHT HYDROCARBON STORAGE FACILITY

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By

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## ABSTRACT

### "XRAL-A STATE OF THE ART LIGHT HYDROCARBON STORAGE FACILITY"

by:

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In only seven short years, XRAL has been developed from a gleam-in-the-eye-plan for an unimproved pasture into the third largest storage facility on a salt dome which has the world's largest concentration of solution mined light hydrocarbon storage. Located on the Barbers Hill Dome approximately 32 miles east of Houston, XRAL's Mont Belvieu facility provides merchant long-term storage in fifteen caverns for diversified NGL's and high purity petrochemicals. This facility presently has a capacity in excess of 20 million barrels, is currently being expanded at an annual rate of 2-1/2 million barrels, and is presently capable of performing simultaneously fourteen independent product movements. Comprehensive preplanning of the pumping and manifold systems has permitted a four-fold expansion of the terminal with a minimum of piping changes and with little or no interruption of customer service. The cavern configurations have been customized to meet specific customer hydraulic-capacity requirements while retaining maximum utilization of the underground salt-mass. A sophisticated computer data acquisition and process control system provides constant monitoring of all piping systems, storage caverns, and custody measurement devices thus allowing safe and efficient operation of the facility with a minimum of personnel while retaining a maximum amount of both historical and real-time operational data. Initially designed to meet or exceed all then existing applicable design codes and regulations, the XRAL facility is finding it easy to comply with the current wave of increasingly restrictive new safety and environmental requirements.