

## Wraith™ Frac Ball Performs Consistently During Extensive Operations

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CHINA

**A large operation requiring a combined total of 265 fracturing stages across 18 separate shale gas wells experienced outstanding success due to the consistent performance of the Wraith Frac Ball.**

Among the 18 different wells, TVDs ranged between 8917 ft – 11,693 ft, and MDs from 14,078 ft – 18,537 ft. Similar lithologies and bottomhole temperatures (230 - 240° F) meant the operator could employ a standard approach and equipment profile.

Thus, 250 of the 265 total project stages utilized large bore frac plugs run in on wireline and were activated by dropping 3.25" solid Wraith Frac Balls.

The remaining 15 stages (on a single well) required standard bore frac plugs and utilized 1.75" Wraith Frac Balls.

The lowest average time the operator spent on a frac stage was 2 hours and the greatest recorded time spent was 5 hours. Maximum pressures ranged from 11,600 psi – 12,325 psi and the number of stages per well varied from 5-19.

**The project experienced a 100% success rate with all 265 fracturing stages and optimized overall production prospects. By exclusively utilizing the Wraith Frac Ball for this extensive operation, the operator managed to introduce a sizeable cost-savings to the customer through reduced time on the job and by negating the need for additional interventions.**

### Quick Facts

📍 Location	China
🔧 Wellbore	Horizontal
🌐 Lithology	Shale
🏠 Wells	18
📊 Stages	265
📏 Ball Profile	1.75/3.25"
🔗 Compound	Solid B
💧 Frac Fluid	Slick H <sub>2</sub> O

### Highlights

- Involved HP Conditions
- Required No Additional Interventions
- 100% Success Rate