

Lateral: 17,367' MD, 12,363' TVD BH Location: 100' FNL & 2,213' FWL Section 17 T-24-S, R-33-E

Permit Information:

Well Name: Heartthrob 17 State No. 704H

Location:

SL: 455' FSL & 1,112' FWL, Section 17, T-24-S, R-33-E, Lea Co., N.M. BHL: 100' FNL & 2,213' FWL, Section 17, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

| Hole | | Csg | | | | DFmin | DF _{min} | DFmin |
|--------|-----------------|---------|--------|---------|------|----------|-------------------|---------|
| Size | Interval | OD | Weight | Grade | Conn | Collapse | Burst | Tension |
| 17.5" | 0 - 1.205' | 13.375" | 54.5# | J55 | STC | 1.125 | 1.25 | 1.60 |
| 12.25" | 0-4,000' | 9.625" | 40# | J55 | LTC | 1.125 | 1.25 | 1.60 |
| 12.25" | 4,000' - 4,910' | 9.625" | 40# | HCL-80 | LTC | 1.125 | 1.25 | 1.60 |
| 8.75" | 0 - 11,442 | 7.625" | 29.7# | HCP110 | FXL | 1.125 | 1.25 | 1.60 |
| 6.75" | 0'-17,367' | 5.5" | 17# | HCP-110 | LTC | 1.125 | 1.25 | 1.60 |

Cement Program:

| | No. | Wt. | Yld | |
|------------|-------|--------|---------------------|--|
| Depth | Sacks | lb/gal | Ft ³ /ft | Slurry Description |
| 1205' | 697 | 13.5 | 1.74 | Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl2 |
| | | | | (TOC @ Surface) |
| | 333 | 14.8 | 1.35 | Tail: Class 'C' + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% |
| | | | | Sodium Metasilicate + 2.0% KCl (1.06 lb/sk) |
| 4,910' | 692 | 12.7 | 2.22 | Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + |
| .,,, | | | | 0.75% C-41P (TOC @ Surface) |
| | 303 | 14.8 | 1.32 | Tail: Class C + 0.13% C-20 |
| 11,442' | 375 | 10.8 | 3.67 | Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + |
|) | | | | 0.20% D167 (TOC @ 4,410') |
| | 400 | 14.8 | 2.38 | Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 |
| | | | | + 0.02% D208 + 0.15% D800 |
| 17,367' | 800 | 14.8 | 1.31 | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + |
| ~ . ,2 0 / | | | | 0.40% C-17 (TOC @ 10,942') |

Mud Program:

| Depth | Туре | Weight (ppg) | Viscosity | Water Loss | |
|--------------------|-------------|--------------|-----------|------------|--|
| $0 - 1205^{\circ}$ | Fresh - Gel | 8.6-8.8 | 28-34 | N/c | |
| 1,205' - 4,910' | Brine | 10.0-10.2 | 28-34 | N/c | |
| 4,910'-11,442' | Oil Base | 8.7-9.4 | 58-68 | N/c - 6 | |
| 11,442'-17,367' | Oil Base | 10.0-11.5 | 58-68 | 3 - 6 | |
| Lateral | | | | | |