Crow Flat 20-4

Well name:
Operator: **Devon Energy**
String type: Intermediate

Design parameters:

Collapse
Mud weight: 10.100 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface
pressure: 1,760 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,000 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 1,700 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 103 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 500 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 9,800 ft
Next mud weight: 9.600 ppg
Next setting BHP: 4,887 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,000 ft
Injection pressure 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2000	8.625	32.00	J-55	ST&C	2000	2000	7.875	15958

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1049	2530	2.41	2000	3930	1.97	64	372	5.81 J

Prepared Terry Henderson
by: Devon Energy

Date: September 14,2001
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 2000 ft, a mud weight of 10.1 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.