

DEVON ENERGY

Operator: DEVON ENERGY CORP	Well Name: EAST SHUGART UNIT
Project ID:	Location:

Design Parameters:

Mud weight (9.00 ppg) : 0.468 psi/ft
 Shut in surface pressure : 855 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	950	8-5/8"	24.00	J-55	ST&C	950	7.972
	Collapse Load Strgth S.F. (psi) (psi)		Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load Strgth S.F. (kips) (kips)	
1	444	1370 3.086	950	2950	3.11	22.80	244 10.70 J

Prepared by : , Oklahoma City, OK

Date : 08-09-1993

Remarks :

Minimum segment length for the 950 foot well is 900 feet.

Surface string:

Next string will set at 4,500 ft. with 10.10 ppg mud (pore pressure of 2,361 psi.) The frac gradient of 1.000 at the casing seat results in an injection pressure of 950 psi. Effective BHP (for burst) is 950 psi.

The minimum specified drift diameter is 7.972 in.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)