Energy Partners LTD.
East Cameron Block 111, OCS-G 25944, Well No: 2

Mud Program

Interval (TVD) From	Interval (TVD) To	Mud Weight (ppg) From	Mud Weight (ppg) To	Mud Type	Minimum Quantities On Rig Gel (sacks)	Minimum Quantities On Rig Barite (sacks)
0 '	800 '	8.8	9.2	WB	200	1,000
800 '	4,500 '	9.2	9.5	WB	200	1,000
4,500 '	10,000 '	9.5	13.0	WB	200	1,000
10,000 '	11,800 '	13.0	15.7	WB	200	1,000
11,800 '	13,700 '	15.7	17.2	WB	200	1,000

Distance to shorebase: **50** N mi. Time required for delivery of mud supplies = **5.0** hrs.

GENERAL: Water based cuttings and mud will be disposed of overboard as long as toxicity requirements are met. Any which do not meet EPA requirements and all oil based cuttings and effluent will be barged to shore for proper disposal. Actual mud properties will be maintained as dictated by hole conditions.

Casing Program

Size	Liner (L)	Measured Depth Set From	Measured Depth Set To	Wt (lb/ft)	Grade	Connection Type	Hole Size	Casing Ratings Tension	Casing Ratings Collapse	Casing Ratings Burst
30 "	N/A	0	401	310.00	X-52	Welded	Driven	**N/A**	**N/A**	**N/A**
18 5/8 "	N/A	0	800	87.50	J-55	BTC	22	1,367	630	2,250
13 3/8 "	N/A	0	4,500	68.00	HCN-80	BTC	17 1/2	1,556	2,910	5,020
9 5/8 "	N/A	0	10,000	53.50	HCQ-125	SLX	12 1/4	1,628	8,850	12,390
7 5/8 "	L	9,500	11,800	39.00	P-110	SLX	8 1/2	1,108	11,080	12,620
5 "	L	11,300	13,700	18.00	P-110	SLX	6 1/2	462	13,470	13,940

Casing Design

Size	Wt.	Grade	Setting Depth (TVD)	Fracture Gradient @ Shoe	Formation Pressure @ Shoe	Maximum Anticipated Surface Pressure	Design Factors Burst		Design Factors Collapse		Design Factors Tension
30 "	310.00	X-52	401	N/A	N/A	N/A	N/A	D	N/A	D	N/A
18 5/8 "	87.50	J-55	800	11.5	362	428	5.26	D	2.17	D	22.72
13 3/8 "	68.00	HCN-80	4,500	14.3	2,106	2,946	1.70	D	1.71	D	5.95
9 5/8 "	53.50	HCQ-125	10,000	17.5	6,500	4,817	1.20	P	1.58	P	3.80
7 5/8 "	39.00	P-110	11,800	18.4	9,327	6,127	1.29	P	1.34	P	16.25
5 "	18.00	P-110	13,700	18.6	11,897	10,014	1.30	P	1.26	P	14.51

CALCULATION OF MAXIMUM ANTICIPATED SURFACE PRESSURE

MASP = Maximum Anticiapted Surface Pressure (psi)
FG = Fracture Gradient at Casing Shoe (ppg)
TVD = True Vertical Depth of Casing Shoe (ft)

30 " Structural Casing @ 401 '

Will not be shut in.

18 5/8 " Conductor Casing @ 800 '

MASP = ((FG + 1ppg) x .052 x TVD) - (.115 x TVD)
FG = 11.5 ppg TVD = 800 ' **MASP = 428 psi**

13 3/8 " Surface Casing @ 4,500 '

MASP = ((FG + .5ppg) x .052 x TVD) - (.115 x TVD)
FG = 14.3 ppg TVD = 4,500 ' **MASP = 2,946 psi**

9 5/8 " Intermediate Casing @ 10,000 '

MASP = 50% of final hydrostatic at next total depth
=.5 x MW x TVD x .052
MW = 15.7 ppg TVD = 11800 ' **MASP = 4,817 psi**

9 5/8 " Intermediate w/ liner @ 11,800 '

MASP = 50% of final hydrostatic at next total depth
=.5 x MW x TVD x .052
MW = 17.2 ppg TVD = 13700 ' **MASP = 6,127 psi**

5 " Production Liner @ 13,700 '

MASP = Pore Press. in Tgt Sand - Gas Gradient to Surface (Production Design)
=(PP x .052 - Gas Gr) x TVD
PP = 16.8 ppg TVD = 13200 ' **MASP = 10,014 psi**
Gas Gr = 0.115

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BOP PROGRAM

Casing Size	Casing		Equipment		Test Pressure Low/	High
30 "	Structural Casing @	401 '	21 1/4" 2000	Diverter	Function Test	
	70% of Burst	N/A				
	Test Pressure	N/A				
18 5/8 "	Conductor Casing @	800 '	21 1/4" 2000	Diverter		250
	70% of Burst	1,575				
	Test Pressure	250				
13 3/8 "	Surface Casing @	4,500 '	(1) 13-5/8" 5M	Annular	250/	3500
	70% of Burst	3,514	Min. (2) 13-5/8" 10M	Pipe Rams	250/	5000
	Test Pressure	3,600	(1) 13-5/8" 10M	Blind Shear Rams	250/	5000
9 5/8 "	Intermediate @	10,000 '	(1) 13-5/8" 5M	Annular	250/	3500
	70% of Burst	8,673	Min. (2) 13-5/8" 10M	Pipe Rams	250/	7500
	Test Pressure	6,600	(1) 13-5/8" 10M	Blind Shear Rams	250/	7500
9 5/8 "	Intermediate w/ liner @	11,800 '	(1) 13-5/8" 5M	Annular	250/	3500
	70% of Burst	8,834	Min. (2) 13-5/8" 10M	Pipe Rams	250/	7500
	Test Pressure	2,200	(1) 13-5/8" 10M	Blind Shear Rams	250/	7500
5 "	Production Liner @	13,700 '	(1) Will not drill out			
	70% of Burst	9,758	Min. (2) Will not drill out			
	Test Pressure	1,300	(1) Will not drill out			

Conductor casing test pressure is the same as the diverter test pressure.

Surface casing test pressure is 70% of rated burst pressure.

Other casing test pressures are based on 70% of the rated burst pressure of the casing adjusted for the mud weight used during the casing test less a 9.0 ppg backup unless otherwise noted.

Liner test pressures are the same as the liner top test pressure which is a minimum of 500 psi above the previous casing shoe test.

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A. Conductor Casing 18 5/8 ", 87.50 #, J-55 , BTC @ 800 '

1. Collapse Design

Safety Factor = Casing Collapse Rating / (External Hydrostatic - Internal Gas Gradient)

S.F. = 630 /((9.2 * .052 - .115)* 800) = 2.17

2. Tension Design

Safety Factor = Lessor of pipe body or joint strength / (Air Weight * Buoyancy)

S.F. = 1,367,000 /(800 * 88 * .859) = 22.72

3. Burst Design

MASP = ((Fracture Gradient @ Shoe + 1.0) * .052 - Gas Gradient to Surface)

MASP= ((11.5 + 1.0)* .052 - .115)* 800 = 428 psi

S.F. = Casing Burst Rating / MASP = 2,250 / 428 = 5.26

B. Surface Casing 13 3/8 ", 68.00 #, N-80 , BTC @ 4,500 '

1. Collapse Design

Safety Factor = Casing Collapse Rating / (External Hydrostatic - Internal Gas Gradient)

S.F. = 2,910 /((9.5 * .052 - .115)* 4,500) = 1.71

2. Tension Design

Safety Factor = Lessor of pipe body or joint strength / (Air Weight * Buoyancy)

S.F. = 1,556,000 /(4,500 * 68 * .855) = 5.95

3. Burst Design

MASP = ((Fracture Gradient @ Shoe + 0.5) * .052 - Gas Gradient to Surface)

MASP= ((14.3 + 0.5)* .052 - .115)* 4,500 = 2946 psi

S.F. = Casing Burst Rating / MASP = 5,020 / 2946 = 1.70

C. Intr 1 Casing - 9 5/8 " , 53.50 # , HCQ-125 , SLX @ 10,000 '

1. Collapse Design

Safety Factor = Casing collapse rating / (External mud hydrostatic - internal hydrostatic of heaviest mud casing will be exposed to which has fallen to a 9.0 ppg gradient at the casing shoe.

Drilling S.F. = 8,850 /((13 * .052 * (11800 - 9.0 / 17.2 * 11800))) = **2.33**
Production S.F. = Csg collapse rating/(Ext mud hydrostatic-Int Gas Gr.)= 8850 / ((13 x.052 - .115) x 10000) = **1.58**

2. Tension Design

Safety Factor = Lessor of pipe body yield or joint strength / (Air weight * Buoyancy)
S.F. = 1,628,000 /(10,000 * 53.5 * 0.801) = **3.80**

3. Burst Design
Drilling
MASP = 50% of the final hydrostatic @ total depth
MASP = 13700 * 17.2 * .052 * 0.5 = 6127

Maximum Load: Surface Pressure + Mud Hydrostatic + Gas Hydrostatic = Injection Pressure @ Shoe
max load 6127 + 0.894 x + .115 y = (18.4 + 0.5) * .052 * 11800
mud/gas x= 5278 ' Mud Column y= 6522 ' Gas Column

Surface S.F. = 12,390 / 6127 = **2.02**
Mud/Gas S.F. = 12,390 / (6127 + (17.2 - 9.0)* .052 * 5278) = **1.48**

Production
MASP = Pore Press. in Tgt Sand - Gas Gradient to Surface
=(PP x .052 - Gas Gr) x TVD = (16.8*.052-.115) x 13,200 = 10,014 psi
Pressure w/ tubing leak w/ 11.6ppg packer fluid & 11.0ppg backup =
10,014 + 10000 x (11.6-11.0) x .052 = 10,326 psi

Surface S.F. = 12390 / 10,014 = **1.24**
Tbg Leak S.F. = 12390 / 10,326 = **1.20**

D. Liner - 7 5/8 " , 39.00 # , P-110 , SLX @ 11,800 '

1. Collapse Design

Safety Factor = Casing collapse rating / (External mud hydrostatic - internal hydrostatic of heaviest mud casing will be exposed to which has fallen to a 9.0 ppg gradient at the casing shoe.

Drilling S.F. = 11,080 /((15.7 * .052 * (11800 - 9.0 / 17.2 * 11800))) = **2.41**
Production S.F. = Csg collapse rating/(Ext mud hydrostatic-Int Gas Gr.)= 11080 / ((15.7 x.052 - .115) x 11800) = **1.34**

2. Tension Design

Safety Factor = Lessor of pipe body yield or joint strength / (Air weight * Buoyancy)
S.F. = 1,108,000 /(2,300 * 39 * 0.760) = **16.25**

3. Burst Design
Drilling
MASP = 50% of the final hydrostatic @ total depth
MASP = 13700 * 17.2 * .052 * 0.5 = 6127

Maximum Load: Surface Pressure + Mud Hydrostatic + Gas Hydrostatic = Injection Pressure @ Shoe
max load 6127 + 0.894 x + .115 y = (18.4 + 0.5) * .052 * 11800
mud/gas x= 5278 ' Mud Column y= 6522 ' Gas Column

Liner Top S.F. = 12,620 / (6127 + 5,278 * 17.2 * .052 +((10,000 - 200) - 5,278) * 0.115 - (10,000 - 200) * 9.0 * .052)= **1.86**
Max. Liner S.F. = 12,620 / (6127 + 5,278 * 17.2 * 0.052 +(9,800 - 5,278)* .115 - (9,800 * 9.0 * .052) = **1.86**

Production Pressure w/ tubing leak w/ 11.6ppg packer fluid & 12.0ppg backup =
10,014 + 11800 x (11.6-12.0) x .052 = 9,769 psi
Tbg Leak S.F. = 12620 / 9,769 = **1.29**

E. Liner - 5 " , 18.00 # , P-110 SLX @ 13,700 '

1. Collapse Design

Safety Factor = Casing Collapse Rating / (External Mud Hydrostatic - Internal Gas Gradient)

Production S.F. = 13,470 /((17.2 * .052 - 0.115)* 13,700) = 1.26

2. Tension Design

Safety Factor = Lessor of pipe body yield or joint strength / (Air weight * Buoyancy)
S.F. = 462,000 /(2,400 * 18 * 0.737) = 14.51

3. Burst Design

Production S.F. = Casing Burst Rating / (MASP Tbg Leak+Pkr Fluid Hyd-Backup-External Backup)

MASP = 10,014 psi

Pressure w/ tubing leak w/ 11.6ppg packer fluid & 12.0ppg backup =
10,014 + 13200 x (11.6-12.0) x .052 = 9,739 psi

Tbg Leak S.F. = 12620 / 9,739 = 1.30

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Conductor Casing Size: 18 5/8 " Setting Depth: 800 ft. Annular Volume (No Washout): 1254 cu. ft.

Lead Slurry Density: 11.4 ppg Yield: 3.07 cu.ft./sx No. Sxs: 307

Specifications: Class "H" + Extender

Tail Slurry Density: 16.4 ppg Yield: 1.09 cu.ft./sx No. Sxs: 560

Specifications: Premium 8 Hour Compressive Strength of Tail Slurry: 500+ psi

Total Volume: 1,553 cu. ft. Desired Top of Cement: 0 ft.

100

Surface Casing Size: 13 3/8 " Setting Depth: 4,500 ft. Annular Volume (No Washout): 3162 cu. ft.

Lead Slurry Density: 11.4 ppg Yield: 3.07 cu.ft./sx No. Sxs: 1695

Specifications: Class "H" + Extender

Tail Slurry Density: 16.4 ppg Yield: 1.06 cu.ft./sx No. Sxs: 500

Specifications: Premium 8 Hour Compressive Strength of Tail Slurry: 1000+ psi

Total Volume: 5,734 cu. ft. Desired Top of Cement: 0 ft.

100

Intr 1 Casing Size: 9 5/8 " Setting Depth: 10,000 ft. Annular Volume (No Washout): 1252 cu. ft.

Lead Slurry Density: 14 ppg Yield: 1.51 cu.ft./sx No. Sxs: 933

Specifications: 0 Desired Top of Cement: 6,000 ft.

Tail Slurry Density: 16.4 ppg Yield: 1.07 cu.ft./sx No. Sxs: 439

Specifications: Premium Desired Top of Cement: 9,000 ft.

Total Volume: 1,879 cu. ft. 8 Hour Compressive Strength of Tail Slurry: 1000+ psi

50

Liner Size: 7 5/8 " Setting Depth: 11,800 ft. Annular Volume (No Washout): 179 cu. ft.

Lead Slurry Density: 0 ppg Yield: 0.00 cu.ft./sx No. Sxs: 0

Specifications: None Desired Top of Cement: N/A ft.

Tail Slurry Density: 16.4 ppg Yield: 1.07 cu.ft./sx No. Sxs: 232

Specifications: Premium Desired Top of Cement: 9,600 ft.

Total Volume: 248 cu. ft. 8 Hour Compressive Strength of Tail Slurry: 1000+ psi

50

Prod. Liner Size: 5 " Setting Depth: 13,700 ft. Annular Volume (No Washout): 230 cu. ft.

Lead Slurry Density: 0 ppg Yield: 0.00 cu.ft./sx No. Sxs: 0

Specifications: None Desired Top of Cement: N/A ft.

Tail Slurry Density: 18 ppg Yield: 1.43 cu.ft./sx No. Sxs: 224

Specifications: Premium Desired Top of Cement: 11,400 ft.

Total Volume: 320 cu. ft. 8 Hour Compressive Strength of Tail Slurry: 1000+ psi

50