Adder 31 State #504H Lea County, New Mexico

-a0CD

Proposed Wellbore

311' FSL 1963' FEL Section 31 T-24-S, R-33-E

API: 30-025-****

KB: 3,527' GL: 3,502'

Bit Size: 17-1/2" 13-3/8", 54.5#, J-55, STC 0' - 1,150' Bit Size: 12-1/4" TOC: 4,490' 9-5/8", 40#, J-55 , LTC 0' - 4000' 9-5/8", 40#, HCL-80, LTC 4000' - 4,990' Bit Size: 8-3/4" **KOP: 10,599'** Bit Size: 8-1/2" 5-1/2", 17#, P-110 or HCP110, LTC @ 0' - 16,003'

> Lateral: 16,003' MD, 11,064' TVD BH Location: 100' FNL & 2370' FEL Section 31

T-24-S, R-33-E

Permit Information:

Well Name: Adder 31 State No. 504H

Location:

SHL: 311' FSL & 1963' FEL, Section 31, T-24-S, R-33-E, Lea Co., N.M. BHL: 100' FNL & 2370' FEL, Section 31, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0' - 1,150'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0' - 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4000' – 4,990'	9.625"	40#	HCL-80	LTC	1.125	1.25	1.60
8.75"	0'-11,349'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60
8.5"	11,349'- 16,003'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

	No.	Wt.	Yld	
Depth	Sacks	ppg	Ft ³ /ft	Slurry Description
1,150'	494	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	157	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
4,990'	454	9.0	3.5	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	344	14.4	1.20	Tail: Class C + 10% NaCl + 3% MagOx
16,003'	591	11.0	3.21	Lead: Class C + 3% CaCl2 + 3% Microbond (TOC @ 4,490')
	1427	14.4	1.2	Tail: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond

Mud Program:

Depth	Туре	Weight (ppg)	Viscosity	Water Loss
0' - 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 4,990'	Brine	10.0-10.2	28-34	N/c
4,990' – 10,599'	Cut Brine	8.4-9.0	28-34	N/c
10,599' – 16,003'	Oil Base	9.0-9.5	40-42	8-10
Lateral				

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
 - Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator
 - Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher
- H2S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

■ Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

■ Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

■ Communication:

Communication will be via cell phones and land lines where available.

Emergency Assistance Telephone List

PUBLIC SAFETY:	911 or
Lea County Sheriff's Department	(575) 396-3611
Rod Coffman	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174
EOG Resources, Inc.	
EOG / Midland	Office (432) 686-3600
Company Drilling Consultants:	
David Dominque	Cell (985) 518-5839
Mike Vann	Cell (817) 980-5507
Drilling Engineer	
Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256
Drilling Manager	
Aj Dach	Office (432) 686-3751
	Cell (817) 480-1167
Drilling Superintendent	
Domingo Lopez	Office (432) 686-3702
	Cell (432) 215-9452
H&P Drilling	
H&P Drilling	Office (432) 563-5757
H&P 651 Drilling Rig	Rig (903) 509-7131
Tool Pusher:	
Johnathan Craig	Cell (817) 760-6374
Brad Garrett	
Safety	
Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251