

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
Permit 1501

APPLICATION FOR PERMIT TO DRILL

Operator Name and Address CHESAPEAKE OPERATING, INC. PO Box 11050 Midland, TX 79702-8050		OGRID Number 147179
		API Number 30-025-36866
Property Code 19457	Property Name RUTH 20	Well No. 002

Surface Location

UL or Lot D	Section 20	Township 16S	Range 36E	Lot Idn D	Feet From 523	N/S Line N	Feet From 841	E/W Line W	County Lea
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Proposed Pools

LOVINGTON;UPPER PENN, WEST 40750

Work Type New Well	Well Type OIL	Cable/Rotary	Lease Type State	Ground Level Elevation 3940
Multiple N	Proposed Depth 11700	Formation Strawn	Contractor	Spud Date 10/01/2004

Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	450	500	0
Int1	11	8.625	32	4850	1400	0
Prod	7.875	5.5	17	11700	1100	4650

Casing/Cement Program: Additional Comments

13 3/8 csg. cmt'd w/350 sx C1C + 2% CaCl2 + 4% bentonite tail in w/150 sx C1C + 2% CaCl2; 8 5/8 csg. cmt'd w/1100 sx C1C + 5% Sodium Ch + .25 lbs/sk Cello Flake + 2% CD-32, tail in w/300 sx C1C + 1% CaCl2; 5 1/2 csg. cmt'd w/200 sx C1. H + .25 lbs/sx Cello Flake + 6% bwoc Bentonite + 0.3% bwoc R-21 tail w/ 300 sx CSE + 2 lbs/sx EC-1 + 3 lbs/sx LCM-1 + .7% bwoc FL-25 + 0.7% bwoc FL-52 + .3% bwoc Sodium Metasilicate. Stage 2 Lead 400 sx Poz + .5% bwoc FL-25 + 6% bwoc Bentonite, tail w/200 sx C1. H + 1% CaCl2

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Double Ram	5000	5000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Electronically Signed By: Mark Mabe

Title: Manager

Date: 09/13/2004

Phone: 432-685-4339

OIL CONSERVATION DIVISION

Electronically Approved By: Paul Kautz

Title: Geologist

Approval Date: 09/14/2004 Expiration Date: 09/14/2005

Conditions of Approval:
There are conditions. See Attached.