

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address Chesapeake Operating, Inc. P. O. Box 18496 Oklahoma City, OK 73154-0496		<sup>2</sup> OGRID Number 147179 ✓
<sup>3</sup> Property Code 24566	<sup>4</sup> Property Name Newman "32" State	<sup>5</sup> API Number 30-025-37170
<sup>9</sup> Proposed Pool 1 Stateline Ellenburger 57810		<sup>10</sup> Proposed Pool 2

**<sup>7</sup> Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	32	23S	38E		660	N	2310	E	Lea ✓✓

**<sup>8</sup> Proposed Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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**Additional Well Information**

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S ✓	<sup>15</sup> Ground Level Elevation 3305
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 12,500	<sup>18</sup> Formation Ellenburger	<sup>19</sup> Contractor Nabors #311	<sup>20</sup> Spud Date 03/15/05
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner: Synthetic <input type="checkbox"/> _____mils thick Clay <input type="checkbox"/> Pit Volume: _____bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

**<sup>21</sup> Proposed Casing and Cement Program**

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2	13-3/8	48#	450	475	Surf
12-1/4	9-5/8	36#	3500	865	Surf
8-3/4 &	5-1/2	17#	12500	1280 1st stg	3000
7-7/8				55 2nd stg	

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Chesapeake Operating, Inc. proposes to drill to 12,500' w/TD in the Ellenburger with Nabor's Rig #311 as the drilling contractor.

Nabor's BOP stack is per attached schematics.

Permit Expires 1 Year From Approval  
Date Unless Drilling Underway

NSL-5180

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OGD-approved plan <input checked="" type="checkbox"/>		OIL CONSERVATION DIVISION	
Printed name: Lynda Townsend		Approved by: <i>Chris Williams</i>	
Title: Sr. Landman		Title:	
E-mail Address: ltownsend@chkenergy.com		Approval Date: APR 01 2005 Expiration Date:	
Date: 02/24/05	Phone: (405)848-8000	Conditions of Approval Attached <input type="checkbox"/>	

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1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

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1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <u>30.025.37170</u>	Pool Code <u>57810</u>	Pool Name <u>Stateline Ellenburger</u>
Property Code <u>34566</u>	Property Name <u>NEWMAN "32" STATE</u>	Well Number <u>1</u>
OGRID No. <u>147179</u>	Operator Name <u>CHESAPEAKE ENERGY</u>	Elevation <u>3305</u>

Surface Location

UL or lot No. <u>B</u>	Section <u>32</u>	Township <u>23 S</u>	Range <u>38 E</u>	Lot Idn	Feet from the <u>660</u>	North/South line <u>NORTH</u>	Feet from the <u>2310</u>	East/West line <u>EAST</u>	County <u>LEA</u>
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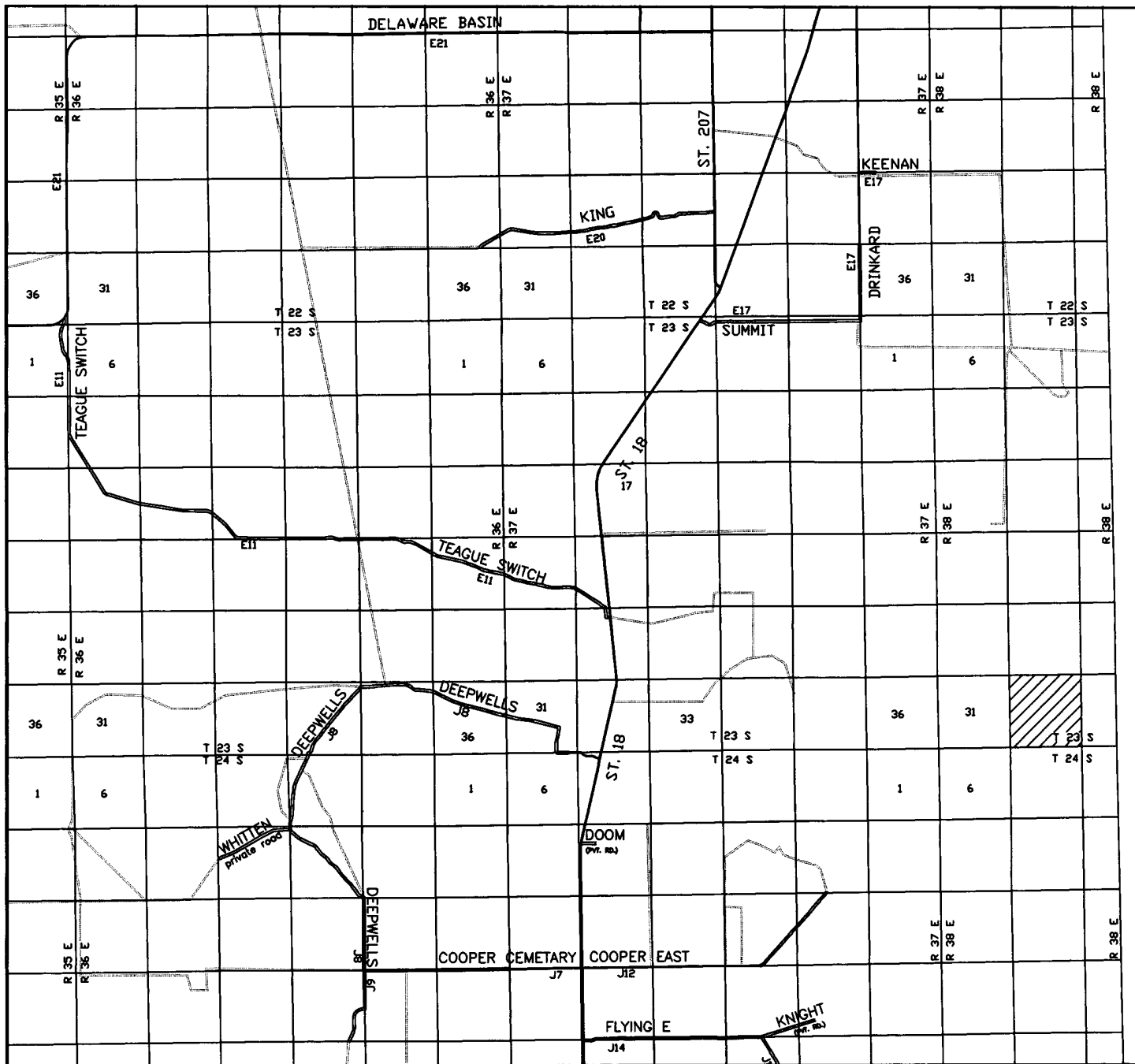
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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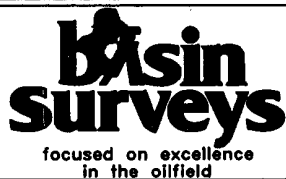
Dedicated Acres <u>80 N/2 NE</u>	Joint or Infill	Consolidation Code	Order No. <u>NSL-5180</u>
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>Lynda Townsend</u> Signature</p> <p><u>Lynda Townsend</u> Printed Name</p> <p><u>Sr. Landman</u> Title</p> <p><u>02/24/05</u> Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p><u>JANUARY 10, 2005</u> Date Surveyed</p> <p><u>DAVID L. JONES</u> Signature of Professional Surveyor</p> <p><u>7977</u> O. No. 500</p> <p>Certification No. <u>7977</u></p> <p><b>BASIN SURVEYS</b></p>



NEWMAN "32" STATE #2  
 Located at 660' FNL and 2310' FEL  
 Section 32, Township 23 South, Range 38 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
[basinsurveys.com](http://basinsurveys.com)

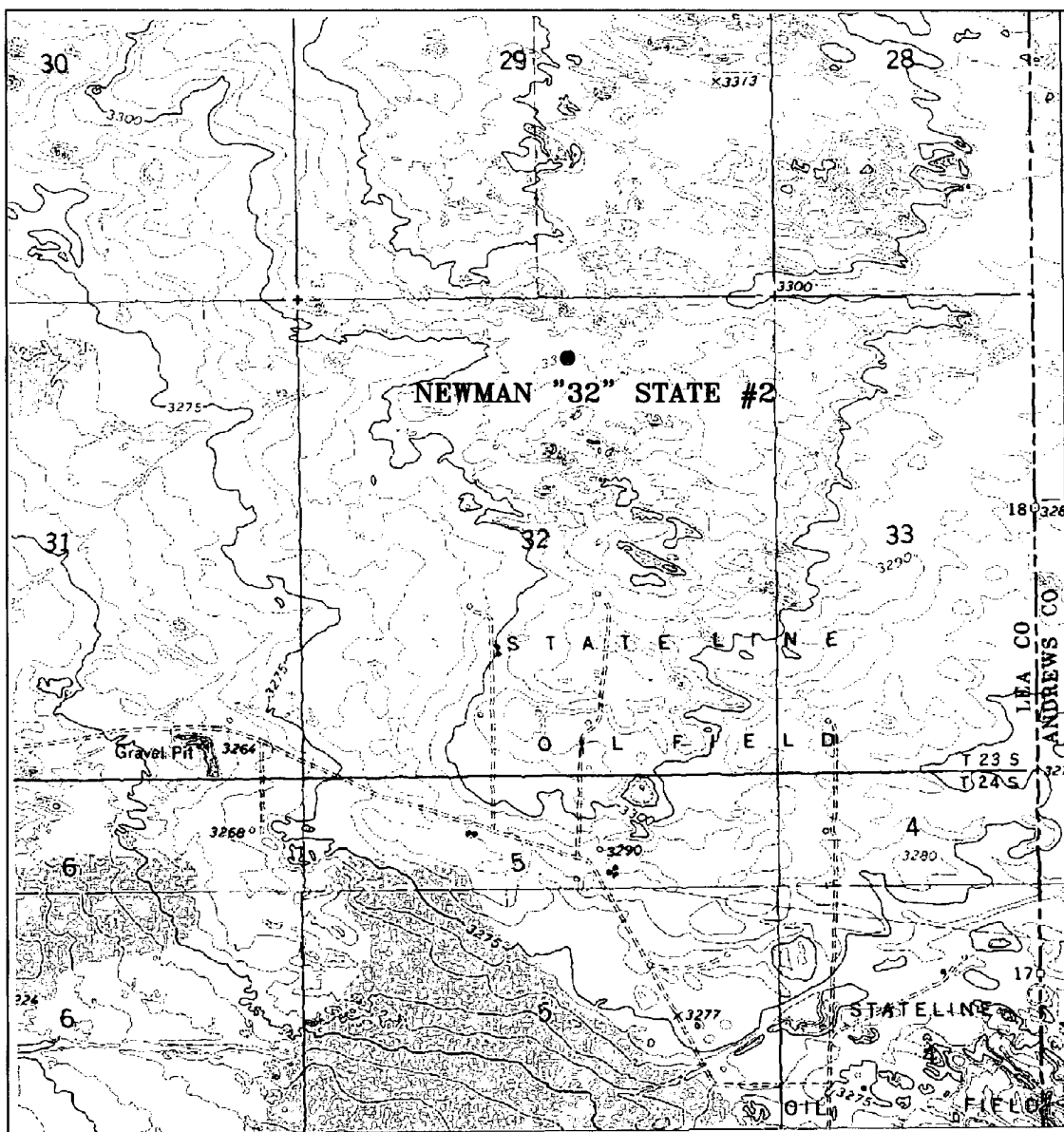
W.O. Number: 5000AA - KJG #1

Survey Date: 01-09-2005

Scale: 1" = 2 MILES

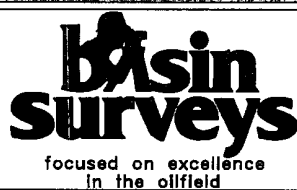
Date: 01-10-2005

CHESAPEAKE  
 OPERATING  
 INC.



## NEWMAN "32" STATE #2

Located at 660' FNL and 2310' FEL  
Section 32, Township 23 South, Range 38 East,  
N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(505) 393-7316 - Office  
(505) 392-3074 - Fax  
basinsurveys.com

W.O. Number: 5000AA - KJG #1

Survey Date: 01-09-2005

Scale: 1" = 2000'

Date: 01-10-2005

**CHESAPEAKE  
OPERATING  
INC.**

# BLOWOUT PREVENTOR SCHEMATIC

## CHESAPEAKE OPERATING INC

**WELL** : Newman 32 #2

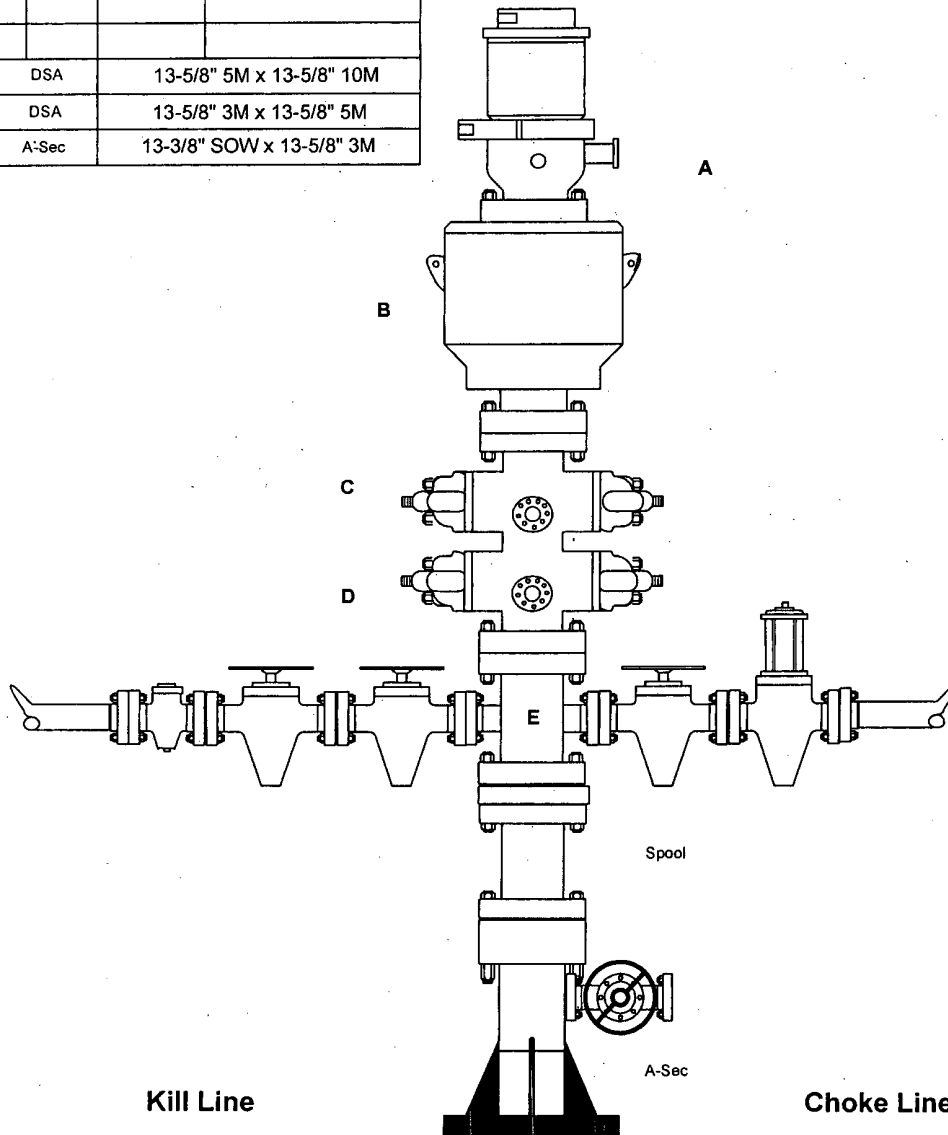
**RIG** : Nabors #311

**COUNTY** : Lea

**STATE:** New Mexico

**OPERATION:** Drill out below 13-3/8" Casing

	SIZE	PRESSURE	DESCRIPTION
<b>A</b>	13-5/8"	500#	Rot Head
<b>B</b>	13-5/8"	5,000#	Annular
<b>C</b>	13-5/8"	10,000#	Pipe Rams
<b>D</b>	13-5/8"	10,000#	Blind Rams
<b>E</b>	13-5/8"	10,000#	Mud Cross
	DSA	13-5/8" 5M x 13-5/8" 10M	
	DSA	13-5/8" 3M x 13-5/8" 5M	
	A-Sec	13-3/8" SOW x 13-5/8" 3M	



SIZE	PRESSURE	DESCRIPTION
2"	10,000#	Check Valve
2"	10,000#	Gate Valve
2"	10,000#	Gate Valve

SIZE	PRESSURE	DESCRIPTION
4"	10,000#	Gate Valve
4"	10,000#	HCR Valve

**Chesapeake**  
Natural Gas  
Natural Advantage

HOLE SIZE	FORMATION TOPS	LOGGING PROGRAM	CASING & CEMENT	MUD WT
17 1/2"			<b>13-3/8" Surface Casing:</b> Lead: 265 sx 12.6 ppg, 1.93 yield Tail: 210 sx 14.8 ppg, 1.34 yield TOC @ surface	Surface to 450' 8.6 - 9.2 ppg Vis: 34-36 FL: N/C
12-1/4"	450' 1,505' Rustler 3,015' Yates 3,305' Seven Rivers		<b>9-5/8" Intermediate Casing:</b> Lead: 730 sx 11.9 ppg, 2.45 yield Tail: 135 sx 14.8 ppg, 1.34 yield TOC @ surface	450' - 3,500' 10 - 10.1 ppg Vis: 28-30 FL: N/C Brine Water
8-3/4"	3,500' 3,905' Queen 4,540' San Andres 5,770' Glorieta	Mudlogger @ 3,500'- TD		3,500' - 8,800' 8.4 - 8.5 ppg Vis: 28-29 FL: N/C
7-7/8"	6,725' Tubb 6,875' Lower Clearfork 7,300' Abo 8,045' Wolfcamp 8,500' DV Tool 8,535' Mississippian 8,920' Woodford 9,335' Siluro-Devonian 10,935' Montoya 11,270' Simpson 11,665' McKee 12,005' Joins 12,075' Ellenburger 12,125' Ellenburger porosity 12,500'	Triple Combo (TD to 3,500')	<b>5-1/2" Production Casing:</b> 1st Stage: 775 sx 14.4 ppg, 1.27 yield 2nd Stage Lead: 505 sx 11.9 ppg, 2.45 yield 2nd Stage Tail: 55 sx 15.6 ppg, 1.18 yield TOC @ 3,000'	8,800' - 12,500' 8.8 - 9 ppg Vis: 36-45 FL: <15
			<b>5-1/2" 17# L80 &amp; HCL80 LTC Casing</b>	

DATE: 1/20/05  
DATE:

$$\begin{array}{r} 775 \\ - 505 \\ \hline 1280 \end{array}$$

# CASING AND CEMENTING DETAIL SHEET

WELL: Newman 32 #2 COUNTY: Lea DATE: 1/21/2005  
 FIELD: Stateline (Ellenburger) CASING POINT: 450' CASING SIZE 13-3/8"  
**STRING (RUNNING ORDER)** **TORQUE (ft-lb)**  
 1. 0' - 450' ft. 48# H-40 ST&C Opt 3,220# (2,420 - 4,330)  
 2. \_\_\_\_\_

## SPACE FLOAT EQUIPMENT AS FOLLOWS:

ITEM	LOCATION OR DEPTH
(1) - 13-3/8" guide shoe	Bottom of first joint
(1) - 13-3/8" X 17-1/2" centralizer	6' - 10' above guide shoe
(1) - 13-3/8" insert valve	Between 2 <sup>nd</sup> and 3 <sup>rd</sup> joint
(3) - 13-3/8" X 17-1/2" centralizer	Top of 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> joints
(2) - 13-3/8" X 17-1/2" centralizer	Every 4 <sup>th</sup> joint to surface

CEMENT (MIXING ORDER)		CEMENT CO.	Halliburton	Odessa, Texas	432-682-4305
TYPE	ADDITIVES	SACKS	WT - PPG	YIELD	GAL/SX
LEAD:					
Halliburton Light Premium Plus	2% CaCl <sub>2</sub> + .25 pps Flocele	265	12.6	1.93	10.56
TAIL:					
Premium Plus	2% CaCl <sub>2</sub>	210	14.8	1.34	6.34

## CEMENT PROPERTIES:

Lead: 12 hrs = 150 psi; 24 hrs = 550 psi; Free Water = 0%; FL = 850 cc

Tail: 12 hrs = 750 psi; 24 hrs = 1,300 psi; 72 hrs = 2,000 psi; Free Water = 0%; FL 750 cc

## CEMENTING PROCEDURE (Contact NMOCD 12 HRS PRIOR TO CMT. JOB)

Pump 50 bbls of freshwater preflush ahead of cement. 98 bbls mixed water will be required. Displace with fresh water at maximum rate. Reduce rate if losses are noted. WOC 8 hrs before drilling out.

## MISCELLANEOUS INFORMATION

Minimum collapse safety factor of 3.51 (complete evacuation). 100% collapse value of 740 psi.

Minimum burst safety factor of 1.44 (1,200 psig test). 100% burst value of 1,730 psi.

Minimum tension safety factor of 7.19 (casing full of cement). 100% tension value of 322,000 lbs.

Temperature survey after 4-6 hrs if circulation is lost or cement does not circulate.

Top of cement - Surface + 100% excess. Tail 300' of fill that includes 50% excess.

Note: Use ONE (1) wiper plug.

Note: Cement company to obtain water sample at location for testing (pump time, retarder, etc.)

REMARKS: \*\*\*NOTIFY NMOCD PRIOR TO CEMENTING\*\*\*

Prepared: DFD

Approved: Chris Williams

# CASING AND CEMENTING DETAIL SHEET

WELL: Newman 32 #2 COUNTY: Lea DATE: 01/21/2005

FIELD: Stateline (Ellenburger) CASING POINT: 12,500' CASING SIZE 5-1/2"

## STRING (RUNNING ORDER)

## TORQUE (ft-lb)

1.	0' - 11,500'	17#	L-80 LT&C	Opt 3,410 (2,560 - 4,260)
2.	11,500' - 12,500'	17#	HCL-80 LT&C	Opt 3,830 (2,870 - 4,790)

## SPACE FLOAT EQUIPMENT AS FOLLOWS:

ITEM	LOCATION OR DEPTH
(1) - 5-1/2" LT&C float shoe	Bottom of 1 <sup>st</sup> joint
(1) - 5-1/2" X 7-7/8" bowspring centralizer	6' - 10' above float shoe
(1) - 5-1/2" X 7-7/8" bowspring centralizer	1 <sup>st</sup> collar
(1) - 5-1/2" LT&C float collar	Between 2 <sup>nd</sup> and 3 <sup>rd</sup> joint
(1) - DV tool	Set at 8,500' (Tool depth will be based on logs)
(2) - 5-1/2" X 7-7/8" bowspring centralizer	Above and below DV tool
(45) - 5-1/2" X 7-7/8" bowspring centralizer	Every 3 <sup>rd</sup> joint through pay interval and every 6 <sup>th</sup> joint to 3,000'

## CEMENT (MIXING ORDER)

CEMENT CO. Halliburton Hobbs, NM 432-682-4305

TYPE	ADDITIVES	SACKS	WT - PPG	YIELD	GAL/SX
<b>LEAD: Stage 1</b>					
50:50 Poz: Premium	2% Bentonite + 0.6% Halad-9 + 2.5 pps salt	775	14.4	1.27	5.75
<b>LEAD: Stage 2</b>					
Interfill C	0.25 pps Flocele	505	11.9	2.45	14.12
<b>TAIL: Stage 2</b>					
Premium		55	15.6	1.18	5.23

## CEMENT PROPERTIES:

Lead (2<sup>nd</sup> stage) = 350 psi; Free Water = 0.5%; FL = 850 cc

Tail (2<sup>nd</sup> stage) = 1,500 psi; Free Water = 0.0%; FL = 660 cc

## CEMENTING PROCEDURE (NOTIFY THE NMOCD 12 HRS. PRIOR TO CEMENT JOB)

Pump 20 bbls fresh water ahead of lead slurry. 283 bbls of mixed water will be required. Displace casing with fresh water at 5-7 bpm. Reciprocate pipe at 6-10 ft. strokes while mixing and displacing cement during the 1<sup>st</sup> stage. Circulate a minimum of 4 hours between stages.

## MISCELLANEOUS INFORMATION

Collapse resistance of 5-1/2" 17# L-80 LT&C casing 6,280 psi. Minimum safety factor is 1.39 (complete evacuation).  
Burst resistance of 5-1/2" 17.0# L-80 LT&C casing 7,740 psi. Min safety factor is 1.63 (surface pressure of 4,748 psi - filled with gas).  
Tension resistance of 5-1/2" 17.0# L-80 LT&C 348,000' lbs. Min safety factor is 2.53 (surface pressure of 4,748 psi - filled with gas).  
Use log caliper volume plus 20% to arrive at final cement volumes.  
**Land 5-1/2" casing w/ 80% string wt on slips.**

NOTE: Use one (1) wiper plug.

NOTE: Cement company to obtain water sample at location for testing (pump time, retarder, etc.).

REMARKS: \*\*\*CALL NMOCD PRIOR TO CEMENTING\*\*\*

Prepared: DFD

Approved: \_\_\_\_\_



Submit 3 Copies To Appropriate District Office  
District I  
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District II  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.

30-025-37170

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name  
Newman 32 State

34566

8. Well Number 002

9. OGRID Number 147179

10. Pool name or Wildcat  
Stateline;Ellenburger

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
Chesapeake Operating, Inc.

147179

3. Address of Operator  
P. O. Box 11050  
Midland, TX 79702-8050

4. Well Location

Unit Letter B : 660 feet from the North line and 2310 feet from the East line  
Section 32 Township 23S Range 38E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3305

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Depth to Groundwater 150+ Distance from nearest fresh water well 1000+ Distance from nearest surface water 1000+

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume 12139 bbls; Construction Material plastic

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Chesapeake, respectfully, requests that the attached procedure be approved for the drilling pit for this well. Chesapeake, hereby, agrees to close the pit according to NMOCD guidelines Section B

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

Brenda Coffman

TITLE Regulatory Analyst

DATE 01/21/2005

Type or print name Brenda Coffman

For State Use Only

ORIGINAL SIGNED BY  
CHRIS WILLIAMS

OC DISTRICT SUPERVISOR/GENERAL MANAGER

Telephone No. (432)687-2992

APPROVED BY:

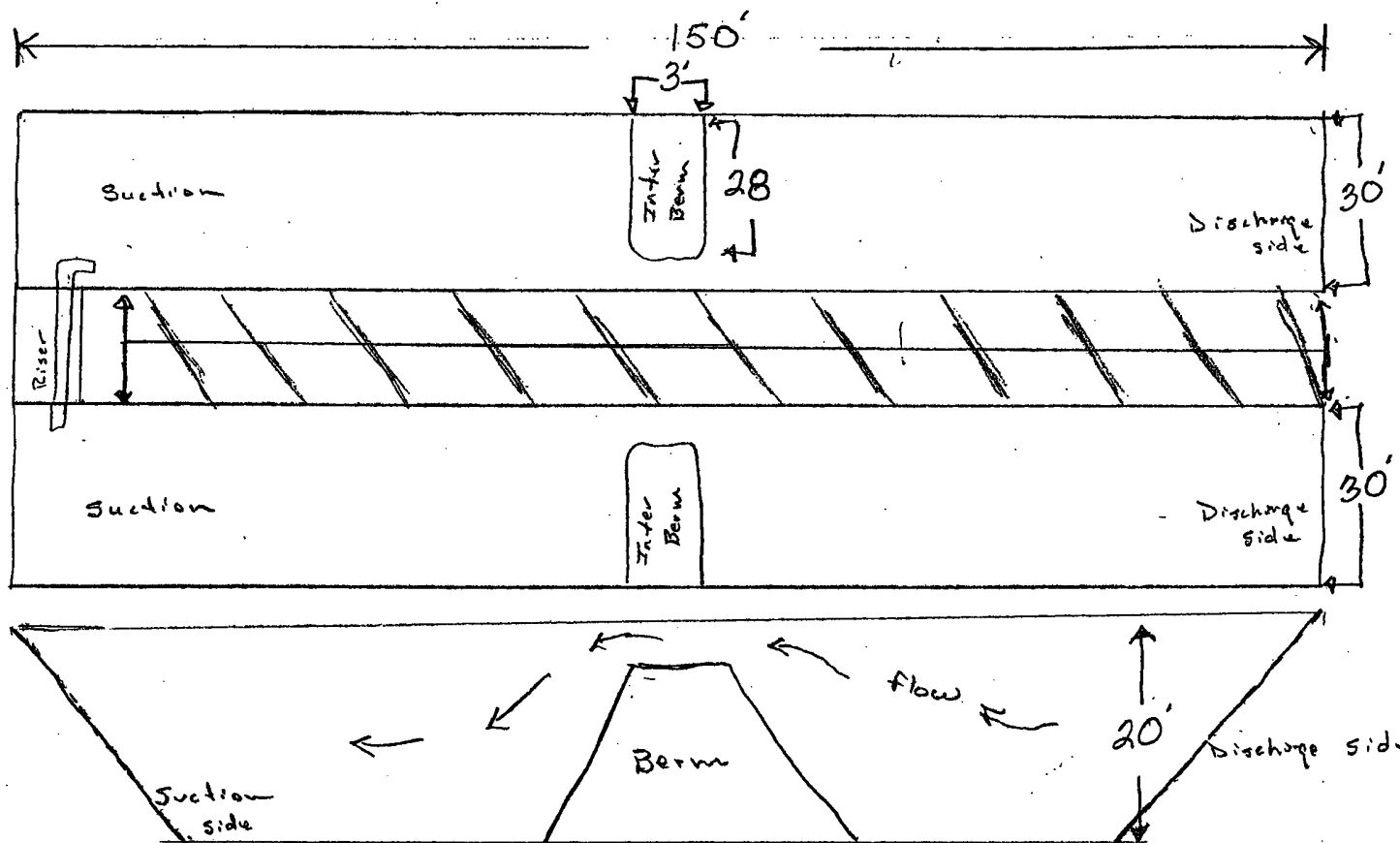
Chris Williams

TITLE

DATE

Conditions of Approval (if any):

APR 01 2005

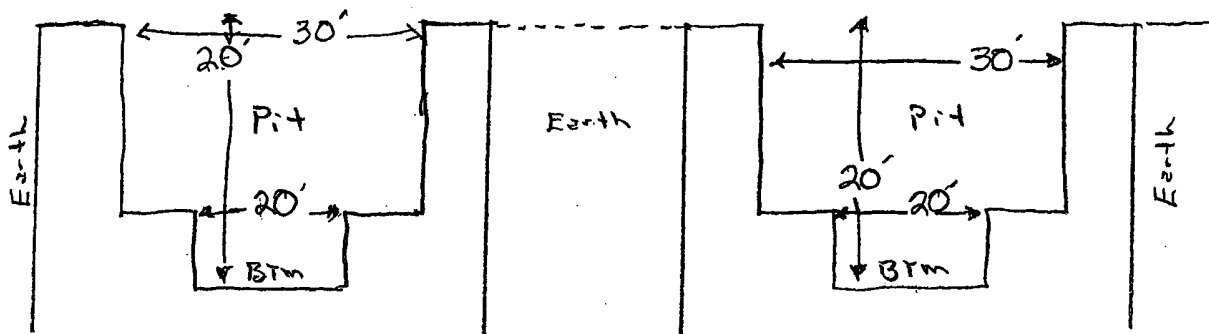


12 mm plastic  
over all

Top View

Side View

$18' \times 30' \times 140' = 75600 \text{ ft}^3 \div 5.6146 = 13464.8 \text{ bbls} \times 2 = 26929.7 \text{ bbls}$ , with 18' of fluid & cuttings in pits.  
 $20' \times 30' \times 140' = 90000 \text{ ft}^3 \div 5.6146 = 16029.6 \text{ bbls} \times 2 = 32059.2 \text{ bbls}$  with 20'



End cross section