

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

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Chesapeake Operating, Inc. P.O. Box 18496 Oklahoma City, OK 73154-0496		² OGRID Number 147179
		³ API Number 30 - 025-33579
³ Property Code 19457	⁵ Property Name Ruth 20	⁶ Well No. 1
⁹ Proposed Pool 1 Undesignated Shoe Bar, Wolfcamp, North		¹⁰ Proposed Pool 2

Surface Location

UL or lot no C.	Section 20	Township 16 S	Range 36E	Lot Idn	Feet from the 609'	North/South North	Feet from the 1650'	East/West line West	County Lea
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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

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Cable/Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3943'
¹⁶ Multiple N	¹⁷ Proposed Depth 11400' PB	¹⁸ Formation Wolfcamp	¹⁹ Contractor	²⁰ Spud Date Upon Approval

Actual Casing and Cementing of Well Bore

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48#	450'	500 sxs	0'
12 1/4"	8 5/8"	32# & 28#	4357'	1500 sxs	0'
7 7/8"	5 1/2"	17#	11935'	550 sxs	3345'

²² 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

Please find the attached information for a proposed Wolfcamp re-completion:
Work procedure to abandon the Strawn and recompleat in the Wolfcamp formation,
Current well-bore diagram, NMOCD's C-102 land plat and C-144(CLEZ) pit permit.
The location of this well lies to the northeast of the Shoe Bar; Wolfcamp, North Oil Pool boundaries, which will require a NSL approval.

**Permit Expires 2 Years From Approval
Date Unless Drilling Underway
Plugback**

NSL-6299

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Bryan Arrant

Printed name: Bryan Arrant

Title: Senior Regulatory Compl. Sp.

E-mail Address: bryan.arrant@chk.com

Date: 11/03/2010

Phone: 405-935-3782

OIL CONSERVATION DIVISION

Approved by:

[Signature]
PETROLEUM ENGINEER

Title:

Approval Date:

DEC 15 2010

Expiration Date:

Conditions of Approval Attached ☐

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 15, 2009
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-33579	² Pool Code 56295	³ Pool Name Undes. Shoe Bar; Wolfcamp, North
⁴ Property Code 19457	⁵ Property Name Ruth 20	⁶ Well Number 1
⁷ OGRID No. 147179	⁸ Operator Name Chesapeake Operating, Inc.	⁹ Elevation 3943' GR

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	16S	36E		609'	North	1650'	West	Lea

¹¹ 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

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. NSL-6299
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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>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Bryan Arrant</i> 11/02/2010 Signature Date</p> <p>Bryan Arrant Printed Name</p>	
	<p>¹⁸ SURVEYOR CERTIFICATION</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>_____ Date of Survey</p> <p>_____ Signature and Seal of Professional Surveyor:</p> <p>Please Refer to Original Plat</p> <p>_____ Certificate Number</p>	

Ruth 1-20
 Sec. 20-T16S-R36E, 609 FNL & 1650 FWL
 Lea County, NM
 API #3002533579
 CHK Prop #811892
 AFE #305469
 10/5/10



Abandon Strawn & Recomplete Wolfcamp

Well Data

Tubing: 2-7/8" @ 11,541'
 Casing: 5.5" 17# @ 11,935'
 TD: 11,935'
 Elevation: 3,961' KB 3,943' GL
 WI / NRI (%): 72.00/ 56.53

Tools: 2-7/8" X 5.5" TAC @ 11,197'

Open Perforations:

Strawn 11,440' – 46', 11,464' – 74', 11,480' – 90'

Proposed Perforations:

Wolfcamp 10,310' – 13' (3 SPF), 10,380' – 90' (6 SPF)

Tubular Specifications

SIZE	WEIGHT	GRADE	BURST	COLLAPSE	YIELD	DRIFT (ID/OD)	CAPACITY (FT./GAL)	CAPACITY (FT./BBL)
2-7/8"	~	~	10570 psi	11160 psi	145K	2.347" / 3.094"	4.1135	172.76
5.5"	17#	~	~	~	~	4.767" / 6.050"	1.0242	43.01

Procedure

1. MIRU PU. ND WH. NU BOP. Release TAC @ 11,197'. TOH standing 2-7/8" production tbgr.
2. RU wireline. RIH w/ 5.5" CIBP. Set at 11,400' and dump bail 35 sx cmt on top. RD wireline. WOC.
3. RU Hydrotesters. TIH while hydrotesting the 2-7/8" tbgr. Tag cmt. Pressure test csg to 500 psi. TOH. RD Hydrotesters.
4. RU wireline. RIH. Correlate w/ GR/Nuutron/Density log ran by Halliburton dated Oct. 14, 1996 and shoot Wolfcamp w/ 3-1/8" guns, 23g charges, and 0.42" holes, and 60° phasing. RD wireline. (Note: Do not use the Resistivity log)

Formation	Depth	Total Pay	SPF
Wolfcamp	10,310' – 13'	3'	3
Wolfcamp	10,380' – 90'	10'	6

5. PU 5.5" packer. TIH on 2-7/8" tbgr. Set packer @ +/- 10,290.
6. RU acid crew. Establish a rate. Treat Wolfcamp perforations w/ 1500 gal of 20% HCL while dropping 100 balls evenly across job. Overflush with a tbgr volume. RD acid crew. Swab back to test for hydrocarbon.
7. If hydrocarbons present, perform an Ultrigel job per service company recommendations.
8. PU production equipment. TIH. Set SN below the Wolfcamp perforations. TIH w/ pump and rods.
9. ND BOP. NU WH. RDMO PU.

Contacts

Completions Superintendent: Mark Mabe (432) 556-6067
 Production Foreman: Steve Serna (575) 390-9053
 Production Engineer: Shannon Glancy (405) 935-8109

CURRENT WELLBORE SCHEMATIC



WELL: RUTH 1-20
FIELD: WEST LOVING PENN
COUNTY: LEA STATE: NEW MEXICO
LOCATION: 609.0 FNL & 1,650.0 FWL SEC 20, BLK ,
ELEVATION: 3,943.00 GR -- 3,961.00 RKB
TD: 11,935.0 PBD: Original Hole - 11753.0

PROP #: 811892
API: 3002533579
SPUD DATE: 9/18/1996
RIG RELEASE: 9/18/1996
FIRST SALES:
WELLBORE TYPE:

Well Config: - Original Hole, 6/23/2010 10:35:41		Casing String: Production							
Schematic - Actual		Wellbore							
<p>13 3/8" 48# Surf Csg 13 3/8in, 48.00lbs/ft, H-40, 18-450 ftKB Cmt w/ 500 sx, Circ</p> <p>8 5/8" 32# & 28# Int Csg 8 5/8in, 18-4,357 ftKB Cmt w/ 1500 sx</p> <p>STRAWN, 11,440</p> <p>PBD, 11,753 5 1/2" 17# Prod Csg Cmt w/ 550 sx 5 1/2in, 17.00lbs/ft, 18-11,935 ftKB TD, 11,935</p>		Set Depth (ftKB)	11,935.0						
		Original Hole							
		Item Description	OD (in)	ID (in)	Drift (in)	Wt (lbs/ft)	Grade	Top (ftKB)	Btm (ftKB)
		Casing Joints	5 1/2	4.892		17.00		18.0	8,245.0
		DV Tool	5 1/2					8,245.0	8,246.0
		Casing Joints	5 1/2	4.892		17.00		8,246.0	11,934.0
		Float Shoe	5 1/2					11,934.0	11,935.0
		Perforations							
		Date	Zone	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Phasing (°)		
		1/22/1997		11,440.0	11,446.0	6.0			
1/22/1997		11,464.0	11,474.0	6.0					
10/26/1996		11,480.0	11,490.0	6.0					
Tubing String: Tubing - Production		Wellbore							
Set Depth (ftKB)	11,541.0	Original Hole							
Run Date	2/8/2007								
Item Description	OD (in)	ID (in)	Wt (lbs/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)		
Tubing	2 7/8					18.0	11,197.0		
Anchor/...	2 7/8					11,197.0	11,200.0		
Tubing	2 7/8					11,200.0	11,512.0		
Seat Nip...	2 7/8					11,512.0	11,513.0		
Tubing	2 7/8					11,513.0	11,541.0		
Stimulations									
Stim Details									
Type	Date	Zone	Top (ftKB)	Bottom (ftKB)					
Addizing	3/8/2003		11,440.0	11,490.0					
Rod - Conventional on 1/8/2009									
Rod Description	Run Date	Set Depth (ftKB)							
Rod - Conventional	1/8/2009	11,513.0							
Rod Components									
Item Description	OD (in)	Jts	Top (ftKB)	Btm (ftKB)					
Polished Rod	1 1/4		9.0	35.0					
Rod Sub	7/8		35.0	37.0					
Rod Sub	7/8		37.0	39.0					
Sucker Rod	7/8	154	39.0	3,889.0					
Sucker Rod	3/4	294	3,889.0	11,289.0					
Sinker Bar	1 1/2	8	11,289.0	11,489.0					
Rod Pump	1 1/4		11,489.0	11,513.0					
Rod Insert Pump	1 1/4		11,513.0	11,513.0					
Attachments									
Date	Type 1	Description							
1/28/2009	AFE	Ruth 1-20 AFE #401763							
Well History									
Date	Event								
No events found.									

Asset Manager: Kim Henderson



RECEIVED

NOV 30 2010
HOBBSOCD

Regulatory Department

CERTIFIED MAIL RETURN RECEIPT 7010 1060 0000 0256 8114

November 29, 2010

Chevron U.S.A., Inc.
15 Smith Road
Midland, TX 79705

Re:
Ruth 20 #1
Unit C, Sec. 20, T-16-S R-36-E
609' FNL & 1650' FWL
Lea Co., NM
API 30-025-33579

Dear Sirs/Madams,
Please find the permit to recomplete this well in the Undesignated Shoe Bar; Wolfcamp oil pool at a measured depth of 10,310'-13' & 10,380'-90' perfoed interval. NMOC's rule 19.15.15.12 (Special Rules for Multiple Operators within a Spacing Unit) requires notice. 19.15.15.2(a) provides Chevron U.S.A., Inc. the opportunity to object within twenty days of the date that operator mailed notice upon receipt of the application. Please call or email me if you have any questions or concerns.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Bryan Arrant".

Bryan Arrant
Senior Regulatory Compliance Specialist
Chesapeake Energy Corporation
6100 N. Western Avenue
Oklahoma City, OK 73118
Office: (405) 935-3782
Fax: (405) 849-3782
E-mail: Bryan.Arrant@chk.com

Enclosures: • Permit application to recomplete
NSL-6299

CC: NMOC's District I & IV offices
New Mexico State Land Office

Chesapeake Energy Corporation
P.O. Box 18496 • Oklahoma City, OK 73154-0496 • 6100 N. Western Avenue • Oklahoma City, OK 73118
405.848.8000

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chevron U.S.A. Inc.
15 Smith Road
Midland, TX 79705

2. Article Number

(Transfer from service label)

1010 1060 0900 0256 8114

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY
A. Signature

X *[Signature]*

☐ Agent

☐ Addressee

B. Received by (Printed Name)

[Signature]

C. Date of Delivery

12/1/0

D. Is delivery address different from Item 1?

☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☒ Certified Mail

☐ Express Mail

☐ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

UNITED STATES POSTAL SERVICE

REG GRANDE DISTRIB

01 DEC 2004 PM 3:11

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Chesapeake Energy Corporation
6100 N. Western Ave.

Oklahoma, City, OK 73118

ATTN: Bryan Arrant

544

