

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

RECEIVED

MAR 09 2010

NMOCD ARTESIA

Form C-101
June 16, 2006

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 - 015-23380
³ Property Code 301426	⁵ Property Name State IN	⁶ Well No 1
⁹ Proposed Pool 1 Mosley Canyon, Strawn Gas		¹⁰ Proposed Pool 2 Undes Crooked Creek Wolfcamp Gas

⁷ Surface Location

UL or lot G	Section I	Township 24S	Range 24E	Lot Idn	Feet from the 1984'	North/South North	Feet from the 1966'	East/West line East	County Eddy
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⁸ 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 A	¹² Well Type Code G	¹³ Cable/Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3937'
¹⁶ Multiple Y	¹⁷ Proposed Depth PSTD-10205'	¹⁸ Formation Strawn & Wolfcamp	¹⁹ Contractor	²⁰ Spud Date ASAP

²¹ Proposed Casing and Cement Program Actual casing & 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#	400'	450 sxs	Circulated
12 1/4"	9 3/8"	36#	2700'	1300 sxs	Circulated
8 3/4"	5 1/2"	17# & 15.5#	10880'	1600 sxs	2620'-TS

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
Chesapeake Operating, Inc. plans to add pay to the Strawn and commingle with the Wolfcamp. Please find the work procedure, actual and proposed well-bore diagram, NMOCD's C-102s and C-144 (CLEZ) pit permit. This permit is for "work only". An administrative application to commingle the Strawn and Wolfcamp is required for this well to produce.

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

Signature:

Printed name: Bryan Arrant

Title: Senior Regulatory Compliance Sp

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

OIL CONSERVATION DIVISION

Approved by

Title:

Approval Date:

Expiration Date:

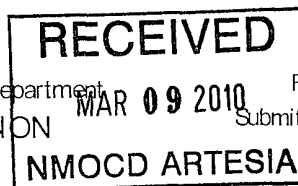
Date 3/8/2010

Phone: 405-935-3782

Conditions of Approval Attached ☐

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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 30-015-23380	² Pool Code 97489	³ Pool Name Undes. Crooked Creek; Wolfcamp Gas
⁴ Property Code 301426	⁵ Property Name State IN	⁶ Well Number 1
⁷ OGRID No. 147179	⁸ Operator Name Chesapeake Operating, Inc.	⁹ Elevation 3937' GR

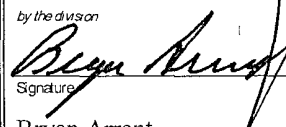
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	1	24S	24E		1984'	North	1966'	East	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 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No DHC-Pending						

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.

¹⁶		<div>1984' FNL</div>		<div>1966' FEL</div>	¹⁷ OPERATOR CERTIFICATION <i>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 unless 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</i>  Signature 03/05/2010 Date Bryan Arrant Printed Name
				¹⁸ SURVEYOR CERTIFICATION <i>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</i> Date of Survey Signature and Seal of Professional Surveyor Please refer to original plat Certificate Number	

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Form C-102
Revised October 15, 2009
Submit one copy to appropriate
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-23380		² Pool Code 81470		³ Pool Name Mosley; Canyon; Strawn /	
⁴ Property Code 301426		⁵ Property Name State IN			⁶ Well Number 1
⁷ OGRID No 147179		⁸ Operator Name Chesapeake Operating, Inc.			⁹ Elevation 3937' 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
G	1	24S	24E		1984'	North	1966'	East	Lea

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¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. DHC-Pending
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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.

<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">1984' FNL</div> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">1966' FEL</div> </div>	<p>¹⁶</p>	<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> 03/05/2010 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>

STATE IN 1**SEC 1, 24S-24E, 1980 FNL & 1980 FEL****Eddy, NM****API #3001523380****Add Pay to Strawn & Complete Wolfcamp****Well Data**

Tubing: 2-3/8" 4.7# N-80 @ 9,148'
 Casing: 5-1/2" 17# N-80 & 15.5# K-55/N-80 @ 10,880'
 TOC: 2,620' based on Temp Survey
 TD: 10,880'
 PBTD: 10,205' (CIBP @ 10,240 w/ 35' cmt)
 Elevation: 3,958' KB 3,937' GL

Tubing Detail:

Collar Stop: 9,001'
 On/Off Tool: 9,041' (1.875" ID "F" profile)
 Packer: 2-3/8" X 5-1/2" packer @ 9,044' (Guiberson Uni-Packer VI)
 Tbg: 2-3/8" 4.7# N-80 @ 9,047' - 9,114'
 F-Nipple: 9,114' (1.81" ID)
 Tbg: 2-3/8" 4.7# N-80 @ 9,115' - 9,148'

Note: Csg loaded w/ 77 bbls of 3% KCL per 1994 acid job.

Open Perforations:

Strawn 9,240' - 9,265' w/ 4 SPF (25' Gross Interval)
 9,452' - 9,465' w/ 4 SPF (13' Gross Interval)

Proposed Perforations:

Strawn 9,147' - 9,185' w/ 4 SPF (38' Gross Interval)
 Wolfcamp 8,022' - 8,032' w/ 4 SPF (10' Gross Interval)
 8,982' - 8,996' w/ 4 SPF (14' Gross Interval)

Tubular Specifications

SIZE	WEIGHT	GRADE	BURST	JOINT YIELD	DRIFT	CAPACITY (GAL/FT.)	CAPACITY (BBL/FT.)
5-1/2"	17#	N-80	7,740 psi	348,000#	4.767"	0.97640	0.02320
5-1/2"	15.5#	K-55	4,810 psi	222,000#	4.825"	0.99970	0.02380
2-3/8"	4.7#	N-80	11,200 psi	104,340#	1.901"	0.16240	0.00387
2-3/8" x 5-1/2"						0.76960	0.01830

Procedure

Strawn Perforations

1. Prepare location. Test anchors and clean area for workover.
2. MIRU SL. RIH to retrieve plunger equipment and collar stop @ 9,001'. POOH.
3. RIH to set plug in 1.81" F-Nipple @ 9,114'. RDMO SL.
4. MIRU PU. ND WH. NU BOP. Unlatch from on/off tool @ 9,041'. Swab down backside w/ sandline. Backside was loaded w/ 77 bbls of 3% KCL in 1994. Bring back at least 60 bbls if possible in order to protect open perforations. Latch back into on/off tool.
5. Release 5-1/2" Guiberson Uni-packer VI. TOH standing 2-3/8" 4.7# N-80 production tbgs. LD components of bottom hole production assembly. (Check and note any scale or corrosion. Salt buildup has been an issue in the past)
6. PU bit & scraper for 5-1/2" csg. TIH on 2-3/8" 4.7# N-80 tbgs. TIH and clean-out through the perforations. TOH standing the tbgs. LD the bit & scraper.
7. MIRU WL. PU perforating guns. Correlate to log and perforate Strawn from 9,147' – 85' (38' Gross) w/ 2 SPF @ 90° phasing. POOH & LD guns. RDMO WL.
8. MIRU hydrotesters. PU 5-1/2" RBP w/ ball basket and packer. TIH while hydrotesting to 6000#'s. Set RBP @ +/- 9,200'. Release and come up to set packer @ +/- 9,135'. RDMO hydrotesters.
9. MIRU acid crew. Pump 5,000 gal 15% HCL acid treatment w/ ball diverters. Displace acid to the perms w/ 2% KCL. RDMO acid crew.
10. Recover load, and swab test Strawn perforations (9,147' – 85') w/ sandline.

Wolfcamp Perforations

1. Release packer. TIH and latch into RBP. Release RBP & TOH standing the tbgs.
2. MIRU WL. PU perforating guns. Correlate to log and perforate Wolfcamp from 8,982' – 96' (14' Gross) w/ 4 SPF @ 90° phasing. POOH & LD guns. RDMO WL.
3. PU 5-1/2" packer and RBP. TIH & set RBP @ +/- 9,100'. Release from RBP and set packer @ +/- 8,950'.
4. MIRU acid crew. Pump 1,500 gal 15% HCL acid treatment. Displace acid to the perms w/ 2% KCL. RDMO acid crew.
5. Recover load, and swab test Wolfcamp perforations (8,982' – 96') w/ sandline.
6. Release 5-1/2" packer. TIH and latch into RBP. Release RBP & TOH standing the tbgs.
7. MIRU WL. PU perforating guns. Correlate to log and perforate Wolfcamp from 8,022' – 32' (10' Gross) w/ 4 SPF @ 90° phasing. POOH & LD guns. RDMO WL.
8. PU 5-1/2" packer and RBP. TIH & set RBP @ +/- 8,050'. Release from RBP and set packer @ +/- 8,010'.
9. MIRU acid crew. Pump 1,500 gal 15% HCL acid treatment. Displace acid to the perms w/ 2% KCL. RDMO acid crew.
10. Recover load, and swab test Wolfcamp perforations (8,982' – 96') w/ sandline.
11. Release 5-1/2" packer. TIH and latch into RBP. Release RBP & TOH standing the tbgs. LD completion packer and RBP.
12. PU 2-3/8" plunger equipment. TIH and land tbgs @ +/- 9,452'. ND BOP. NU WH. RDMO PU.
13. Continue production of commingled Strawn and Wolfcamp formations.



Proposal - Workover

STATE IN 1

Field: Mosley Canyon (Strawn)
County: EDDY
State: NEW MEXICO
Location: SEC 1, 24S-24E, 1980 FNL & 1980 FEL
Elevation: GL 3,937.00 KB 3,958.00
KB Height: 21.00

Spud Date: 7/6/1980
Initial Compl. Date:
API #: 3001523380
CHK Property #: 891272
1st Prod Date: 3/1/1981
PBDT: Original Hole - 10240.0
TD: 10,880.0

