

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUN 15 2009

HOBBS

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

JUN - 9 2009
OCD-HOBBS

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

5. Lease Serial No.
NM-14794

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
Maduro Unit No. 4

9. API Well No.
30-025-30840

10. Field and Pool, or Exploratory Area
Crazy Horse; Delaware

11. County or Parish, State
Lea County, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

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

2. Name of Operator
Cimarex Energy Co. of Colorado

3a. Address
5215 N. O'Connor Blvd., Ste 1500; Irving, TX 75039

3b. Phone No. (include area code)
972-401-3111

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
460 FNL & 1980 FEL
29-19S-33E unit B

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☒ Other Plug back and recomplete horizontally in Bone Spring
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☒ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Well shut in since 04-08. Currently completed in the Delaware 7590-94.' CIBP @ 7770 w/ 35' cmt. Delaware perfs @ 7809-12.' CIBP @ 12280' w/ 35' cmt. Strawn perfs @ 12330-43.' CIBP @ 12450 w/ 35' cmt. Morrow perfs @ 13052-62' -- 13262-64' -- 13267-71' -- 13281-90' -- 13239-49' -- 13439-46' -- 13464-78.' CIBP @ 13514' w/ cmt. Morrow perfs @ 13546-48' -- 13553-56' -- 13561-63.' CIBP @ 13619.' Morrow perfs @ 13632-40.'

Cimarex proposes to perform the following operations in order to plug back and recomplete this well horizontally in the Bone Spring:

- Kill well. ND WH & NU 5K BOP. POOH w/ tbg. Set CICR @ 7822.' Squeeze Delaware 7590-94' and 7809-12' w/ 50 sx cmt.
 - Set CIBP @ 9747' w/ 2 sx sand.
 - Mill window from 9725' to 9740.' Kick off 6 1/2" hole at 9735.' Land curve at 10041' MD and 9930' TVD and drill to TD of 12823' MD and 9930' TVD. 276" 6.5" L-80 4 3/4" per operator 6/5/2009
 - Run 3 1/2" 9.3# P-110 EUE 8rd liner from RSB packer at 9635' to TD at 12823' MD. Liner will be PEAK completion assembly which will require no cement.
 - Fracture treat in several stages as needed through iso-ports separated by iso-packers.
- Please see attached C-102 and preliminary directional survey.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)
Natalie Krueger

Signature
Natalie Krueger

Title
Regulatory Analyst

Date
January 28, 2009

APPROVED

JUN 5 2009

WESLEY W. INGRAM
PETROLEUM ENGINEER

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
[Signature]

Office
PETROLEUM ENGINEER

Conditions of Approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

JUN 23 2009

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, 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 & Natural Resources Department

CONSERVATION DIVISION

JUN 15 2009

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-30840		² Pool Code 59476	³ Pool Name Tonto; Bone Spring, South
⁴ Property Code	⁵ Property Name Maduro Unit		⁶ Well Number 004
⁷ OGRID No. 162683	⁸ Operator Name CIMAREX ENERGY CO. OF COLORADO		⁹ Elevation 3600' GR

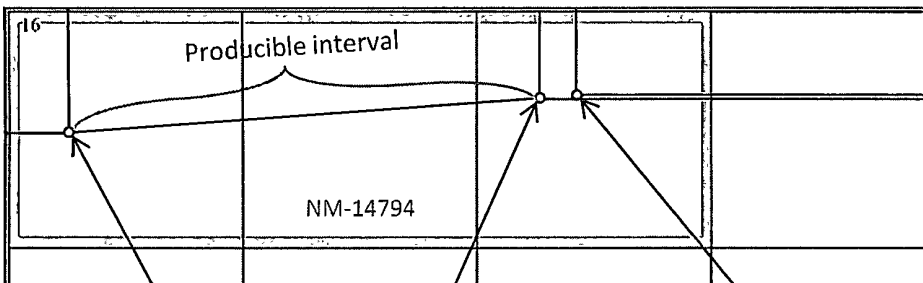
¹⁰ Surface Location

U.I. or lot no. B	Section 29	Township 19S	Range 33E	Lot Idn	Feet from the 460	North/South line North	Feet from the 1980	East/West line East	County Lea
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¹¹ Bottom Hole Location If Different From Surface

U.I. or lot no. D	Section 29	Township 19S	Range 33E	Lot Idn	Feet from the 660	North/South line North	Feet from the 330	East/West line West	County Lea
¹² Dedicated Acres 120	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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 				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 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.</i> <i>Zeno Farris</i> 1/28/2009 Signature _____ Date _____ Printed Name Zeno Farris	
BHL 660' FNL & 330' FWL		EOC 9930' (TVD) 473' FNL & 2175' FEL		SHL & P.P. Bone Spring 9108' 460' FNL & 1980 FEL	
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 _____ Certificate Number _____					



Cimarex Energy Co. of Colorado

Location: Lea County, NM
Field: (Maduro) Sec 29, T19S, R33E
Facility: Maduro Federal No. 4H

Slot: No. 4H SHL
Well: No. 4H
Wellbore: No. 4H PWB

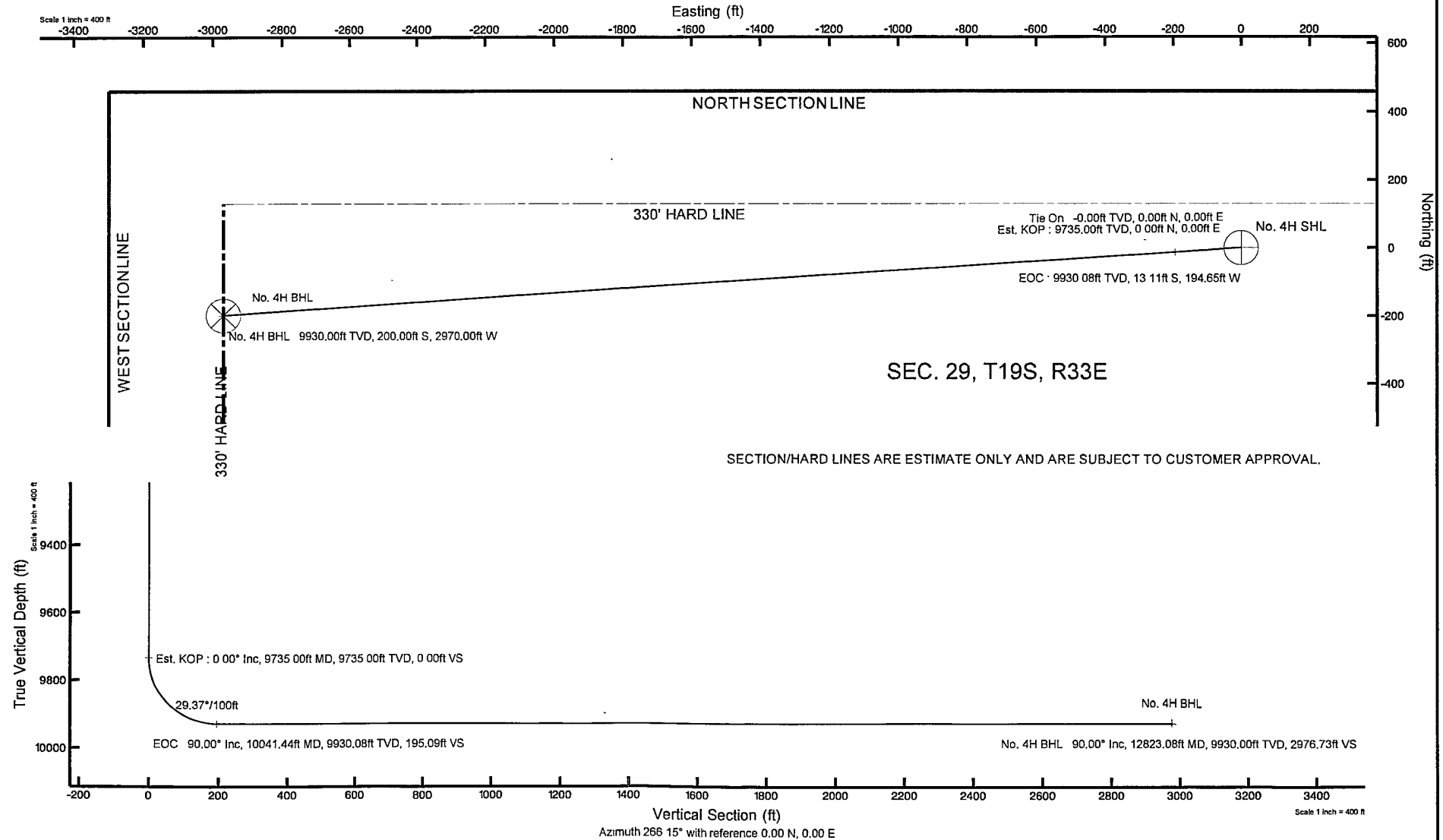


Well Profile Data

Design Comment	MD (ft)	Inc. (")	Az (")	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	266.148	0.00	0.00	0.00	0.00	0.00
Est. KOP	9735.00	0.000	266.148	9735.00	0.00	0.00	0.00	0.00
EOC	10041.44	90.002	266.148	9930.08	-13.11	-194.65	29.37	195.09
No. 4H BHL	12823.08	90.002	266.148	9930.00	-200.00	-2970.00	0.00	2976.73

Plot reference wellpath is Preliminary Plan

True vertical depths are referenced to Rig on No. 4H SHL (RT)	Grid System: NAD83 / TM New Mexico State Plane, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 4H SHL (RT)	North Reference: Grid north
Rig on No. 4H SHL (RT) to Mean Sea Level 3617.5 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Maduro Federal No. 4H) -3600 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: gomeosron 1/8/2009





Planned Wellpath Report

Preliminary Plan

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Maduro) Sec 29, T19S, R33E	Wellbore	No. 4H PWB
Facility	Maduro Federal No. 4H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Gomeoscr
Scale	1.00024	Report Generated	1/9/2009 at 3:19:51 PM
Convergence at slot	n/a	Database/Source file	WA_Midland/No. 4H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	0.00	0.00	30°59'18.404"N	106°03'38.987"W
Facility Reference Pt			0.00	0.00	30°59'18.404"N	106°03'38.987"W
Field Reference Pt			0.00	0.00	30°59'18.404"N	106°03'38.987"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 4H SHL (RT) to Facility Vertical Datum	17.50ft
Horizontal Reference Pt	Facility Center	Rig on No. 4H SHL (RT) to Mean Sea Level	3617.50ft
Vertical Reference Pt	Rig on No. 4H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 4H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	266.15°



Planned Wellpath Report

Preliminary Plan

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Maduro) Sec 29, T19S, R33E	Wellbore	No. 4H PWB
Facility	Maduro Federal No. 4H		

WELLPATH DATA (38 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	266.148	0.00	0.00	0.00	0.00	0.00	Tie On
9108.00†	0.000	266.148	9108.00	0.00	0.00	0.00	0.00	1st Bone Spring Sand
9310.00†	0.000	266.148	9310.00	0.00	0.00	0.00	0.00	Lower 2nd Bone Spring Sand
9321.00†	0.000	266.148	9321.00	0.00	0.00	0.00	0.00	2nd Bone Spring Carbonate
9579.00†	0.000	266.148	9579.00	0.00	0.00	0.00	0.00	2nd Bone Spring Sand
9735.00	0.000	266.148	9735.00	0.00	0.00	0.00	0.00	Est. KOP
9835.00†	29.370	266.148	9830.68	25.07	-1.68	-25.02	29.37	
9935.00†	58.740	266.148	9901.76	93.85	-6.31	-93.64	29.37	
10035.00†	88.110	266.148	9929.98	188.65	-12.67	-188.22	29.37	
10041.44†	90.002	266.148	9930.08	195.09	-13.11	-194.65	29.37	EOC
10135.00†	90.002	266.148	9930.08	288.65	-19.39	-288.00	0.00	
10235.00†	90.002	266.148	9930.08	388.65	-26.11	-387.77	0.00	
10335.00†	90.002	266.148	9930.07	488.65	-32.83	-487.54	0.00	
10435.00†	90.002	266.148	9930.07	588.65	-39.55	-587.32	0.00	
10535.00†	90.002	266.148	9930.07	688.65	-46.27	-687.09	0.00	
10635.00†	90.002	266.148	9930.07	788.65	-52.99	-786.87	0.00	
10735.00†	90.002	266.148	9930.06	888.65	-59.71	-886.64	0.00	
10835.00†	90.002	266.148	9930.06	988.65	-66.43	-986.41	0.00	
10935.00†	90.002	266.148	9930.06	1088.65	-73.14	-1086.19	0.00	
11035.00†	90.002	266.148	9930.05	1188.65	-79.86	-1185.96	0.00	
11135.00†	90.002	266.148	9930.05	1288.65	-86.58	-1285.74	0.00	
11235.00†	90.002	266.148	9930.05	1388.65	-93.30	-1385.51	0.00	
11335.00†	90.002	266.148	9930.04	1488.65	-100.02	-1485.28	0.00	
11435.00†	90.002	266.148	9930.04	1588.65	-106.74	-1585.06	0.00	
11535.00†	90.002	266.148	9930.04	1688.65	-113.46	-1684.83	0.00	
11635.00†	90.002	266.148	9930.04	1788.65	-120.18	-1784.61	0.00	
11735.00†	90.002	266.148	9930.03	1888.65	-126.89	-1884.38	0.00	
11835.00†	90.002	266.148	9930.03	1988.65	-133.61	-1984.15	0.00	
11935.00†	90.002	266.148	9930.03	2088.65	-140.33	-2083.93	0.00	
12035.00†	90.002	266.148	9930.02	2188.65	-147.05	-2183.70	0.00	
12135.00†	90.002	266.148	9930.02	2288.65	-153.77	-2283.48	0.00	
12235.00†	90.002	266.148	9930.02	2388.65	-160.49	-2383.25	0.00	
12335.00†	90.002	266.148	9930.01	2488.65	-167.21	-2483.02	0.00	
12435.00†	90.002	266.148	9930.01	2588.65	-173.93	-2582.80	0.00	
12535.00†	90.002	266.148	9930.01	2688.65	-180.64	-2682.57	0.00	
12635.00†	90.002	266.148	9930.01	2788.65	-187.36	-2782.35	0.00	
12735.00†	90.002	266.148	9930.00	2888.65	-194.08	-2882.12	0.00	
12823.08	90.002	266.148	9930.00 ¹	2976.73	-200.00	-2970.00	0.00	No. 4H BHL



Planned Wellpath Report

Preliminary Plan

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Maduro) Sec 29, T19S, R33E	Wellbore	No. 4H PWB
Facility	Maduro Federal No. 4H		

HOLE & CASING SECTIONS Ref Wellbore: No. 4H PWB Ref Wellpath: Preliminary Plan

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
4.75in Open Hole	9735.00	12823.08	3088.08	9735.00	NA	0.00	0.00	NA	NA

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 4H BHL	12823.08	9930.00	-200.00	-2970.00	-2970.72	-200.05	30°59'15.967"N	106°04'13.066"W	point

**Maduro Unit No. 4
30-025-30840
Cimarex Energy Co. of Colorado
June 2, 2009
Conditions of Approval**

- 1. Notify BLM at 575-393-3612 a minimum of 24 hours prior to starting work.**
- 2. Work to be complete by November 15, 2009.**
- 3. Test BOP equipment.**
- 4. Perform pressure test on squeezed Delaware perforations at 7590-94' and 7809-12'**
- 5. A plug is required at the top of the Wolfcamp formation prior to drilling the Bone Spring horizontal. Plug to be 215' in length and set from 11400-11185'.**
- 6. A plug is required across the perforations used to cement behind the production casing at 10482-10485' prior to drilling the Bone Spring horizontal. Plug is to be 205' in length and set from 10540-10335'. Plug is to be tagged.**
- 7. Unit Plan of Development for 2009 has not been submitted.**
- 8. Unit Agreement states that all formations down to and including the Morrow are part of the unitized substances. Therefore, a Commercial (Paying) Well Determination will be required after this well is recompleted in the Bone Spring formation.**
- 9. Review unit for potential Participating Areas.**

WWI 060509

Maduro Unit No. 4

30-025-30840

29-195-33E

460 FNL & 1980 FEL

Spud date 12-28-89

17 1/2" hole
13 3/4" 48 & 54 5# to 465'
400 sx

12 1/2" hole
9 5/8" 40# to 4943'
Stage 1 775 sx, Stage 2 1630 sx
DV tool @ 2903'

Delaware perms 7590-94'

CIBP @ 7770' w/ 35' cmt

Delaware perms 7809-12'

CIBP @ 12280' w/ 35' cmt

Strawn Perfs 12330-43'

CIBP 12450' w/ 35' cmt

Morrow perms 13052-62'

Morrow perms 13262-64' -- 13267-71' -- 13239-49' -- 13281-90' -- 13439-46' -- 13464-78'

CIBP @ 13514 w/ ct

Morrow perms 13546-48' -- 13553-56' -- 13561-63'

CIBP @ 13619'

Morrow perms 13632-40'

8 1/2" hole
5 1/2" 17# to 13750'
Stage 1 1460 sx, Stage 2 DV tool plugged

TD 11250' & PBTD 11150'