

OCD Hobbs  
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ATS-11-46

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**MOBBSOCD**

FEB 23 2011

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

5. Lease Serial No. **SHL-NMNM-94191** **BHL-NM125173**  
6. If Indian, Allottee or Tribe Name

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			7. If Unit or CA Agreement, Name and No.		
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			8. Lease Name and Well No. <b>&lt;38507&gt;</b> <b>West Shinnery 15 Federal Com #34</b>		
2. Name of Operator <b>Devon Energy Production Co., LP</b>			9. API Well No. <b># 30-D25-40066</b>		
3a. Address <b>20 North Broadway OKC, OK 73102</b>		3b. Phone No. (include area code) <b>&lt;613&gt; (405)-236-3511</b>		10. Field and Pool, or Exploratory <b>Young &lt;65350&gt;</b> <del>Quecho Plains, Bone Spring North</del>	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>SENE 1980' FNL &amp; 330' FEL Unit H</b> At proposed prod. zone <b>SWNW 1980' FNL &amp; 330' FWL Unit E</b>				11. Sec., T. R. M. or Bk. and Survey or Area <b>Sec 15 T18S R32E</b>	
14. Distance in miles and direction from nearest town or post office* <b>Approximately 6 miles southeast of Maljamar, NM.</b>				12. County or Parish <b>Lea</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>330'</b>		16. No. of acres in lease <b>1041.180 ac</b>		17. Spacing Unit dedicated to this well <b>160 acres</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>See attached map</b>		19. Proposed Depth <b>TVD 9157' MD 13602'</b>		20. BLM/BIA Bond No. on file <b>CO-1104</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>3805' GL</b>		22. Approximate date work will start* <b>05/01/2011</b>		23. Estimated duration <b>45 days</b>	

**24. Attachments**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature <b>Spence Laird</b>	Name (Printed/Typed) <b>Spence Laird</b>	Date <b>10/06/2010</b>
Title <b>Regulatory Analyst</b>		

Approved by (Signature) <b>/s/ James Stovall</b>	Name (Printed/Typed) <b>CARLSBAD FIELD OFFICE</b>	Date <b>FEB 18 2011</b>
Title <b>FIELD MANAGER</b>		

Application approval 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.

Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 page 2)

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Capitan Controlled Water Basin

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED**

## 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 &amp; 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

<sup>1</sup> API Number <b>30-025-4066</b>	<sup>2</sup> Pool Code <b>65350</b>	<sup>3</sup> Pool Name <b>Young BONE SPRING North</b>
<sup>4</sup> Property Code <b>38507</b>	<sup>5</sup> Property Name <b>WEST SHINNERY "15" FED. COM</b>	
<sup>7</sup> OGRID No. <b>6137</b>	<sup>8</sup> Operator Name <b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>	<sup>6</sup> Well Number <b>3H</b>
<sup>9</sup> Elevation <b>3805.3</b>		

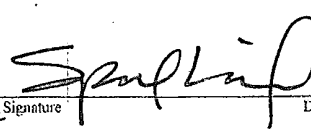
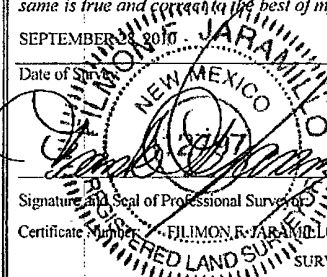
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>H</b>	<b>15</b>	<b>18 S</b>	<b>32 E</b>		<b>1980</b>	<b>NORTH</b>	<b>330</b>	<b>EAST</b>	<b>LEA</b>

<sup>11</sup> 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
<b>E</b>	<b>15</b>	<b>18 S</b>	<b>32 E</b>		<b>1980</b>	<b>NORTH</b>	<b>330</b>	<b>WEST</b>	<b>LEA</b>
<sup>12</sup> Dedicated Acres <b>160</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

NW CORNER SEC. 15 LAT. = 32°45'17.13"N LONG. = 103°45'46.18"W NMSP EAST (FT) N = 638778.54 E = 716732.23	NE CORNER SEC. 15 LAT. = 32°45'17.00"N LONG. = 103°44'44.38"W NMSP EAST (FT) N = 638793.70 E = 722011.20	<b>17 OPERATOR CERTIFICATION</b> 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.  Signature _____ Date <b>10/6/10</b> Printed Name <b>SPENCE LAIRD</b>
BOTTOM OF HOLE LAT. = 32°44'57.54"N LONG. = 103°45'42.29"W NMSP EAST (FT) N = 636799.70 E = 717074.98	SURFACE LOCATION LAT. = 32°44'57.420"N (NAD83) LONG. = 103°44'48.205"W NMSP EAST (FT) N = 636811.24 E = 721695.29	
SW CORNER SEC. 15 LAT. = 32°44'24.90"N LONG. = 103°45'46.11"W NMSP EAST (FT) N = 633498.43 E = 716766.41	SE CORNER SEC. 15 LAT. = 32°44'24.78"N LONG. = 103°44'44.28"W NMSP EAST (FT) N = 633515.93 E = 722048.97	<b>18 SURVEYOR CERTIFICATION</b> 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. SEPTEMBER 29, 2010 Date of Survey  Signature and Seal of Professional Surveyor Certificate Number <b>FILIMON R. JARAMILLO, PLS 12797</b> SURVEY NO. 257

## DRILLING PROGRAM

Devon Energy Production Company, LP

### **West Shinnery 15 Federal Com 3H**

Surface Location: 1980' FNL & 330' FEL, Unit H, Sec 15 T18S R32E, Lea, NM

Bottom hole Location: 400' FNL & 990' FWL, Unit D, Sec 15 T18S R32E, Lea, NM

#### **1. Geologic Name of Surface Formation**

a. Permian

#### **2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a. Base Salado	2760'	Water
b. Yates	2810'	Oil
c. Queen	3910'	Oil
d. Greysburg	4390'	Oil
e. Delaware	4880'	Oil
f. Bone Spring	6760'	Oil
g. 1 <sup>st</sup> Bone Spring SD	8300'	Oil
h. 2 <sup>nd</sup> Bone Spring SD	8980'	Oil
i. 2 <sup>nd</sup> Bone Spring Lower SD	9077'	Oil
j. 2 <sup>nd</sup> Bone Spring Lime (Target)	9200'	Oil
k. Pilot Hole TD	9400'	Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at ~~1350'~~<sup>1265'</sup> and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 4900' and circulating cement to surface. The Bone Spring intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

#### **3. Casing Program:**

*See LOA.*

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0' - <del>1350'</del> <sup>1265'</sup>	13 3/8"	0' - <del>1350'</del> <sup>1265'</sup>	54.4#	STC	J-55
12 1/4"	<del>1265'</del> <sup>1265'</sup> - 4900'	9 5/8"	0' - <del>1250'</del> <sup>1265'</sup> - 4900'	40#	BTC	N-80
8 3/4"	4900' - 9400'		(Pilot Hole)			
8 3/4"	0' - 8600'	5 1/2"	0 - 8600'	17#	LTC	P-110
8 3/4"	8600' - <del>13000'</del> <sup>13602'</sup>	5 1/2"	8600' - <del>13000'</del> <sup>13602'</sup>	17#	BTC	P-110

#### **Design Parameter Factors:**

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13 3/8"	1.79	4.32	6.99
9 5/8"	1.23	2.30	5.09
5 1/2"	1.23	1.74	2.01

#### 4. Cement Program:

**Cementing Program for the Pilot Hole:** 520 sacks Class H, 18 ppg with a .9 cuft yield.

**All Cement Volumes exceed 25% excess**

13 3/8" Surface: **Lead:** 915 sacks (40:60) Poz (Fly Ash):Premium Plus C Cement + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 5% bwow Sodium Chloride + 0.8% bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 101.1% Fresh Water  
**Yield:** 1.83 cf/sack. TOC @ surface.

**Tail:** 300 sacks Premium Plus C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water  
**Yield:** 1.35 cf/sack.

9 5/8" Intermediate: **Lead:** 1405 sacks (40:60) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water  
**Yield:** 1.73 cf/sack. TOC @ surface.

**Tail:** 300 sacks (40:60) C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Water  
**Yield:** 1.35 cf/sack.

5 1/2" Production **1 St Stage**

**Lead:** 655 sacks 35:65 Poz Class C + 0.2% bwoc Sodium Metasilicate + 1.4% bwoc FL-62 + 0.4%  
**Yield:** 2.00 cf/sack.

**Tail:** 1135 sacks 50:50 Poz Class C  
**Yield:** 1.28 cf/sack

**DV TOOL at ~6000'**

**2nd Stage**

**Lead:** 190 sacks Poz Class C Cement + 0.125 lbs/sack Cello Flake + 3 6% bwoc Bentonite + 0.4% bwoc FL-52A + 99.3% Fresh Water  
**Yield:** 2.89 cf/sk

**Tail:** 150 sacks (60:40) Poz Class C Cement + 1% bwow Sodium Chloride + 0.15% bwoc + 63.2% Fresh Water  
**Yield:** 1.35 cf/sk

**TOC for All Strings:**

Surface:	0'
Intermediate:	0'
Production	2800'

The above cement volumes could be revised pending the caliper measurement from the open hole logs. Actual cement volumes will be adjusted based on fluid caliper and caliper log data.

**5. Pressure Control Equipment:**

BOP DESIGN: The 13 3/8" casing will have a 3,000# (Hydril) annular preventer which will be tested to 2000#. The blow out prevention system for the 9 5/8" casing will consist of a bag type (Hydril) preventer, a double ram preventer stack, and a rotating head. Both the Hydril and ram stack will be hydraulically operated. The 9 5/8" BOP system will be rated at 5,000psi. Prior to drilling out the 9 5/8" intermediate shoe, the ram stack will be nipped up with 4.5" pipe rams installed. **The Hydril will be tested to 1000psi (high) and 250psi (low). Tests on the 5000psi BOP will be conducted per the BLM Drilling Operations Order #2. All testing will be performed by independent testers, not the rig pumps.**

The ram system will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and hydril, other BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5000 psi WP.

**6. Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - <del>1350'</del> 1265'	8.4-9.0	32-34	NC	Fresh Water
1265' - <del>1350'</del> 4900'	10.0	28-30	NC	Brine
4900' - <del>13000'</del> 13602'	8.6-9.2	28	NC-12	Fresh Water/Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times.

**7. Auxiliary Well Control and Monitoring Equipment:**

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

**8. Logging, Coring, and Testing Program: See COA**

- Drill stem tests will be based on geological sample shows.
- If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- The open hole electrical logging program will be:
  - Total Depth to Intermediate Casing      Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron - Z Density log with Gamma Ray and Caliper.

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>ii. Total Depth to Surface</li> <li>iii. No coring program is planned</li> <li>iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.</li> </ul> | <p>Compensated Neutron with Gamma Ray</p> |
|--|---|

## 9. Potential Hazards:

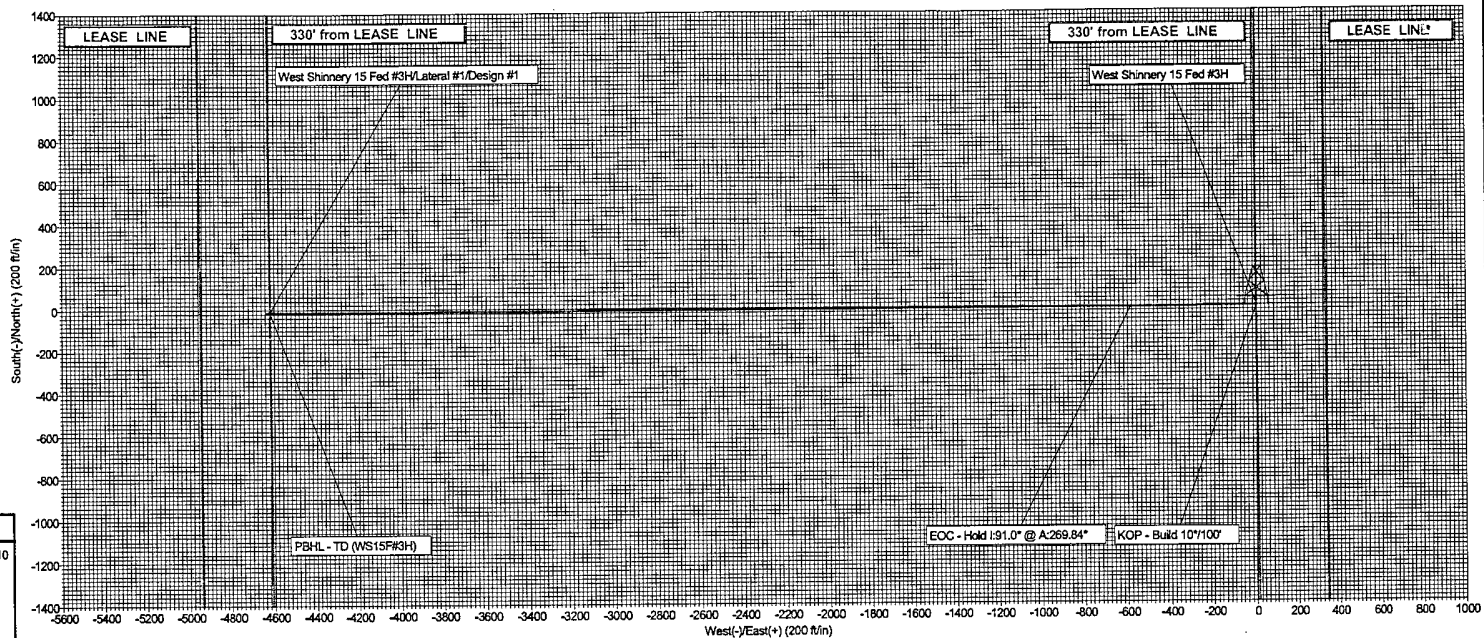
- a. No abnormal pressures or temperatures are expected. There is no known presence of H<sub>2</sub>S in this area; therefore, no H<sub>2</sub>S is anticipated to be encountered. If H<sub>2</sub>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3900 psi and Estimated BHT 170°.

**10. Anticipated Starting Date and Duration of Operations:**

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Project: Lea Co., New Mexico (Nad 83)  
 Site: West Shinnery 15 Fed #3H  
 Well: West Shinnery 15 Fed #3H  
 Wellbore: Lateral #1  
 Design: Design #1



Plan: Design #1 (West Shinnery 15 Fed #3H/Lateral #1)

Created By: Mike Starkey Date: 14:50, October 06 2010

Checked: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

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

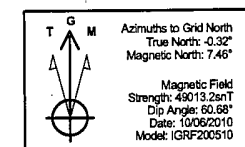
SECTION DETAILS										
Sec	MD	Inc	As	TVD	+N-S	+E/W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8654.95	0.00	0.00	8654.95	0.00	0.00	0.00	0.00	0.00	
3	9564.95	91.00	269.84	9227.82	-1.67	-582.96	10.00	269.84	582.96	
4	13602.95	91.00	269.84	9157.35	-13.24	-4620.32	0.00	0.00	4620.34	PBHL - TD (WS15FW3H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)										
Name	TVD	+N-S	+E/W	Northing	Easting	Latitude	Longitude	Shape		
PBHL - TD (WS15FW3H)	9157.35	-13.24	-4620.32	636799.70	717074.98	32° 44' 57.464 N	103° 45' 42.203 W	Point		

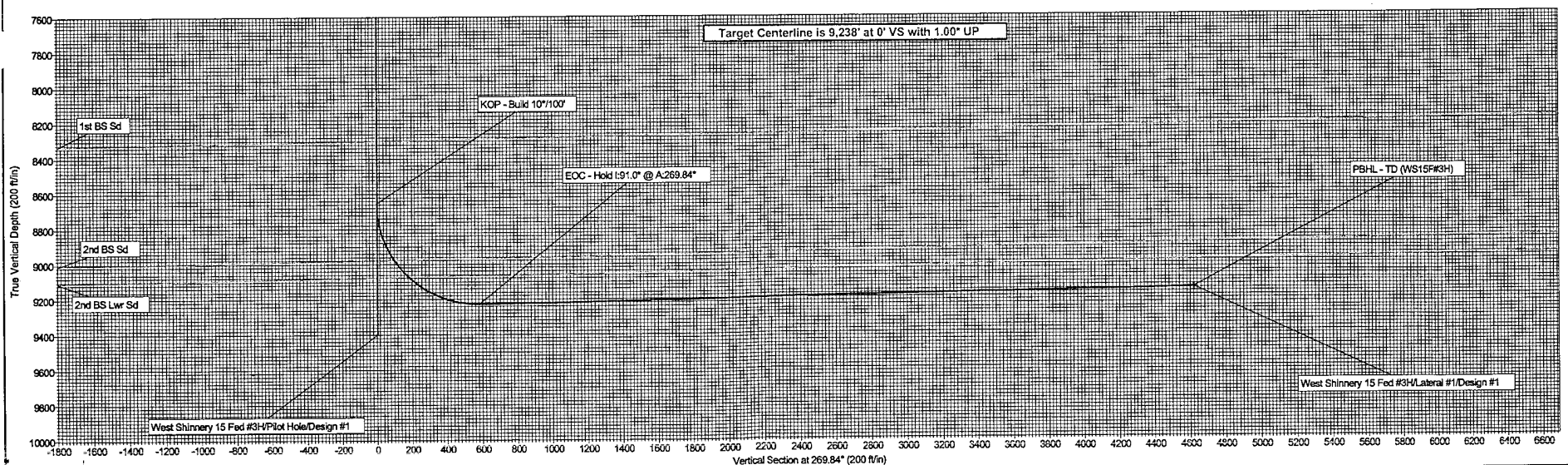
ANNOTATIONS		
TVD	MD	Annotation
8654.95	8654.95	KOP - Build 10°/100'
9227.82	9564.95	EOC - Hold 1:91.0° @ A269.84°

PROJECT DETAILS: Lea Co., New Mexico (Nad 83)

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: New Mexico Eastern Zone  
 System Datum: Mean Sea Level



WELL DETAILS: West Shinnery 15 Fed #3H						
Ground Level: 3805.00						
WELL @ 3825.00ft (Original Well Elev)						
+N-S	+E/W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	636812.94	721695.29	32° 44' 57.345 N	103° 44' 48.103 W	





## **Devon Energy**

Lea Co., New Mexico (Nad 83)

West Shinnery 15 Fed #3H

West Shinnery 15 Fed #3H

Lateral #1

Plan: Design #1

## **Standard Survey Report**

06 October, 2010

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FEB 23 2011  
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## CUDD Drilling &amp; Measurement Services

## Survey Report



Company: Devon Energy  
Project: Lea Co., New Mexico (Nad 83)  
Site: West Shinnery 15 Fed #3H  
Well: West Shinnery 15 Fed #3H  
Wellbore: Lateral #1  
Design: Design #1

Local Co-ordinate Reference: Site West Shinnery 15 Fed #3H  
TVD Reference: WELL @ 3825.00ft (Original Well Elev)  
MD Reference: WELL @ 3825.00ft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 2003.21 Single User Db

Project: Lea Co., New Mexico (Nad 83)  
Map System: US State Plane 1983  
Geo Datum: North American Datum 1983  
Map Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

Site: West Shinnery 15 Fed #3H, Sec 15, T-18S, R-32E  
Site Position: Northing: 636,812.94 ft Latitude: 32° 44' 57.345 N  
From: Map Easting: 721,695.29 ft Longitude: 103° 44' 48.103 W  
Position Uncertainty: 0.00 ft Slot Radius: " Grid Convergence: 0.32 °

Well: West Shinnery 15 Fed #3H  
Well Position: +N/-S 0.00 ft Northing: 636,812.94 ft Latitude: 32° 44' 57.345 N  
+E/-W 0.00 ft Easting: 721,695.29 ft Longitude: 103° 44' 48.103 W  
Position Uncertainty: 0.00 ft Wellhead Elevation: 3,825.00 ft Ground Level: 3,805.00 ft

Wellbore: Lateral #1  
Magnetics: Model Name Sample Date Declination Dip Angle Field Strength  
(°) (°) (nT)  
IGRF200510 10/06/10 7.78 60.68 49,013

Design: Design #1  
Audit Notes:  
Version: Phase: PLAN Tie On Depth: 0.00  
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction  
(ft) (ft) (ft) (°)  
9,157.35 0.00 0.00 269.84

Survey Tool Program Date 10/06/10  
From To Survey (Wellbore) Tool Name Description  
(ft) (ft)  
0.00 8,500.00 Design #1 (Lateral #1) NS-GYRO-MS North sensing gyrocompassing m/s  
8,500.00 13,602.95 Design #1 (Lateral #1) CUDD MWD MWD - Standard CUDD MWD

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,760.00	0.00	0.00	2,760.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
2,810.00	0.00	0.00	2,810.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates SS									
3,910.00	0.00	0.00	3,910.00	0.00	0.00	0.00	0.00	0.00	0.00
Queen SS									
4,390.00	0.00	0.00	4,390.00	0.00	0.00	0.00	0.00	0.00	0.00
Grayburg									
4,880.00	0.00	0.00	4,880.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									



CUDD Drilling & Measurement Services  
Survey Report



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Well: West Shinnery 15 Fed #3H  
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Design: Design #1

Local Co-ordinate Reference: Site West Shinnery 15 Fed #3H  
TVD Reference: WELL @ 3825.00ft (Original Well Elev)  
MD Reference: WELL @ 3825.00ft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 2003.21 Single User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,760.00	0.00	0.00	6,760.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring									
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1st BS Sd									
8,654.95	0.00	0.00	8,654.95	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 10°/100'									
8,998.47	34.35	269.84	8,978.26	-0.29	-99.93	99.93	10.00	10.00	0.00
2nd BS Sd									
9,124.71	46.98	269.84	9,073.82	-0.52	-182.03	182.03	10.00	10.00	0.00
2nd BS Lwr Sd									
9,564.95	91.00	269.84	9,227.82	-1.67	-582.95	582.96	10.00	10.00	0.00
EOC - Hold 1:91.0° @ A:269.84°									
13,602.95	91.00	269.84	9,157.35	-13.24	-4,620.32	4,620.34	0.00	0.00	0.00
PBHL - TD (WS15F#3H)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL - TD (WS15F#3H)	0.00	0.00	9,157.35	-13.24	-4,620.32	636,799.70	717,074.98	32° 44' 57.464 N	103° 45' 42.203 W
- plan hits target center									
- Point									

Formations

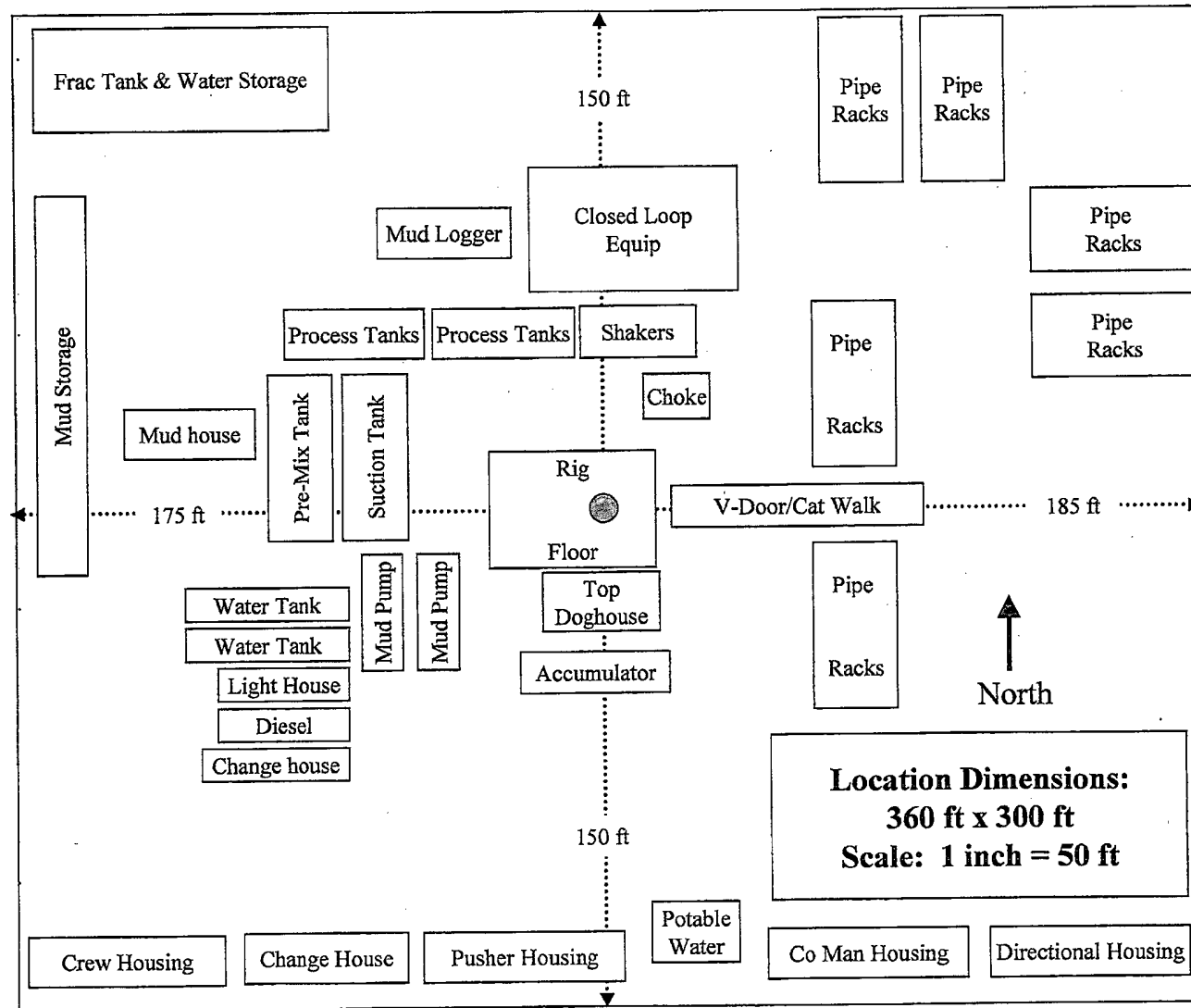
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,760.00	2,760.00	Base Salt		-1.00	270.00
2,810.00	2,810.00	Yates SS		-1.00	270.00
3,910.00	3,910.00	Queen SS		-1.00	270.00
4,390.00	4,390.00	Greyburg		-1.00	270.00
4,880.00	4,880.00	Delaware		-1.00	270.00
6,760.00	6,760.00	Bone Spring		-1.00	270.00
8,300.00	8,300.00	1st BS Sd		-1.00	270.00
8,998.47	8,980.00	2nd BS Sd		-1.00	270.00
9,124.71	9,077.00	2nd BS Lwr Sd		-1.00	270.00

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates	Comment
		+N/-S (ft)	+E/-W (ft)
8,654.95	8,654.95	0.00	0.00
9,564.95	9,227.82	-1.67	-582.95
			KOP - Build 10°/100'
			EOC - Hold 1:91.0° @ A:269.84°

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# Conventional Rig Location Layout



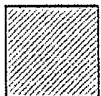


## Proposed Interim Site Reclamation

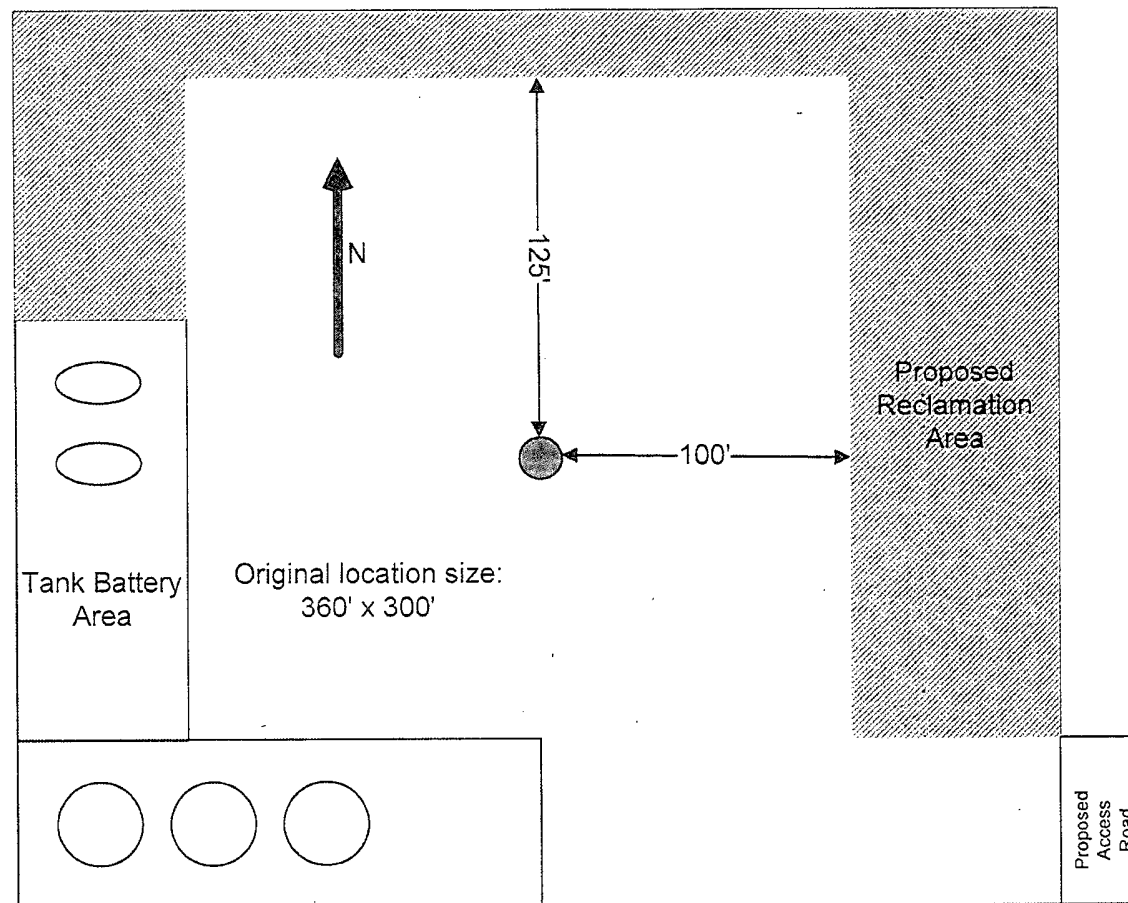
Devon Energy Production Co.

West Shinnery "15" Fed Com 3H  
1,980' FNL & 330' FEL  
Sec. 15 - T18S - R32E  
Lea County, NM

Proposed  
Reclamation Area



1" : 60'

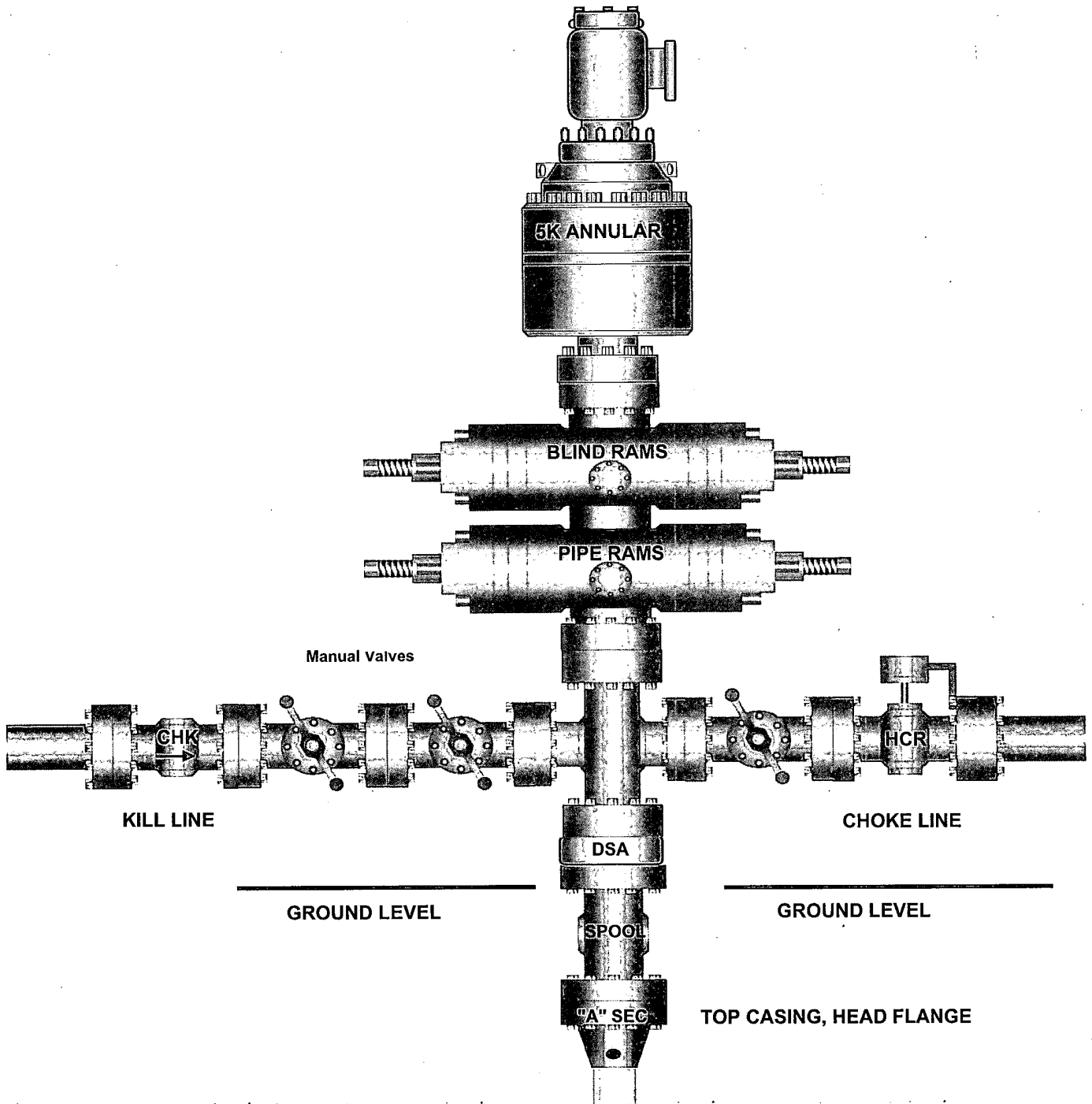


Attachment to Exhibit #1  
NOTES REGARDING BLOWOUT PREVENTERS  
Devon Energy Production Company, LP  
**West Shinnery 15 Federal Com 3H**

Surface Location: 1980' FNL & 330' FEL, Unit H, Sec 15 T18S R32E, Lea, NM  
Bottom hole Location: 400' FNL & 990' FWL, Unit D, Sec 15 T18S R32E, Lea, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

# 11" x 5,000 psi BOP Stack



13-5/8" 3K Annular

