

OCD-ARTESIA

ATS-12-471

EA-12-714

Form 3160-3
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No 1004-0137
Expires March 31, 20075 Lease Serial No.
SL: NM 101600 BHL: NM 102040

6 If Indian, Allottee or Tribe Name

1a. Type of work ☒ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8 Lease Name and Well No.

Bootes 15 Fed Com 1H

2 Name of Operator
Devon Energy Production Co., LP

9 API Well No

30-015-40407

3a Address 20 North Broadway
OKC, OK 731023b Phone No. (include area code)
(405)-552-7802

10 Field and Pool, or Exploratory

Lusk Williams Sink; Bone Spring, West

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface NENE 50' FNL & 340' FEL Lot A

At proposed prod zone SESE 340' FSL & 340' FEL Lot P

11 Sec., T R M or Bk and Survey or Area

Sec 15-T19S-R31E

14 Distance in miles and direction from nearest town or post office*
Approximately 19 miles southwest of Maljamar, NM.

12 County or Parish

Eddy

13 State

NM

15 Distance from proposed*
location to nearest
property or lease line, ft
(Also to nearest drig. unit line, if any) 50'16 No. of acres in lease
SL: 120 & BHL: 16017 Spacing Unit dedicated to this well
160 acres18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft See Plat19 Proposed Depth 11,000'
MTVD 9170' MD 13766'20 BLM/BIA Bond No. on file
PH: 9455' CO-1104 4 NMB00080121 Elevations (Show whether DF, KDB, RT, GL, etc.)
3548' GL22 Approximate date work will start*
04/15/201223. Estimated duration
45 days

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.

2 A Drilling Plan.

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).4 Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above)

5. Operator certification

6 Such other site specific information and/or plans as may be required by the
BLM.

25 Signature

Name (Printed/Typed)

Stephanie A. Ysasaga

Date

03/08/2012

Title

Sr. Staff Engineering Technician

Approved by (Signature)

Name (Printed/Typed)

Is/ Don Peterson

Date

JUN 14 2012

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

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)

RECEIVED

JUN 19 2012

NMOCD ARTESIA

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Steven Jones
Operations Engineer Advisor

Jerry Mathews
Superintendent

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(405) 552-7994 (office)
(405) 596-8041 (cell)

(575) 748-0161 (office)
(575) 748-5234 (cell)

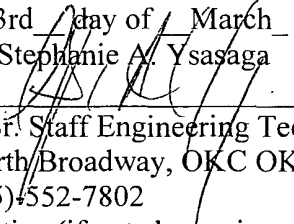
Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this 3rd day of March, 2012.

Printed Name: Stephanie A. Ysasaga

Signed Name: 

Position Title: Sr. Staff Engineering Technician

Address: 20 North Broadway, OKC OK 73102

Telephone: (405) 552-7802

Field Representative (if not above signatory): Don Mayberry (see above)

Address (if different from above):

Telephone (if different from above):

E-mail (optional):

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

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 30-015-40407	² Pool Code 41480	³ Pool Name Lusk	⁴ Well Name WILLIAMS SINK; BONE SPRING, WEST
⁵ Property Code 39287	⁶ Property Name BOOTES 15 FED COM		⁷ Well Number 1H
⁸ OGRID No. 6137	⁹ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.		¹⁰ Elevation 3548.9

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
A	15	19 S	31 E		50	NORTH	340	EAST	EDDY

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
P	15	19 S	31 E		340	SOUTH	340	EAST	EDDY

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. 6-14-12 13766
--------------------------------------	-------------------------------	----------------------------------	--

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 LAT. = 32.6677070°N LONG. = 103.8657579°W NMSP EAST (FT) N = 606959.77 E = 685220.75	N Q CORNER LAT. = 32.6677214°N LONG. = 103.8571804°W NMSP EAST (FT) N = 606976.74 E = 687860.25	SURFACE LOCATION LAT. = 32.6677340°N LONG. = 103.8486008°W NMSP EAST (FT) N = 606993.26 E = 690500.40	17 OPERATOR CERTIFICATION 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: <i>[Signature]</i> Date: 03/13/12 Printed Name: STEPHANIE A. YSASAGA
SW CORNER LAT. = 32.6531943°N LONG. = 103.8657142°W NMSP EAST (FT) N = 601679.93 E = 685257.46	S Q CORNER LAT. = 32.6532052°N LONG. = 103.8571400°W NMSP EAST (FT) N = 601695.64 E = 687896.37	NE CORNER LAT. = 32.6677340°N LONG. = 103.8486008°W NMSP EAST (FT) N = 606993.26 E = 690500.40	18 SURVEYOR CERTIFICATION 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. Date of Survey: FEBRUARY 29, 2012 Signature and Seal of Professional Surveyor: <i>[Signature]</i> Certificate Number: FILIMON F. JARAMILLO, PLS 12797 SURVEY NO 851
BOOTES 15 FED COM 1H ELEV. = 3548.9' LAT. = 32.6675950°N (NAD83) LONG. = 103.8497050°W NMSP EAST (FT) N = 606941.15 E = 690160.83			SE CORNER LAT. = 32.6532167°N LONG. = 103.8485583°W NMSP EAST (FT) N = 601711.78 E = 690537.57
BOTTOM OF HOLE LAT. = 32.6541496°N LONG. = 103.8496656°W NMSP EAST (FT) N = 602049.61 E = 690195.24			BOTTOM OF HOLE LAT. = 32.6532167°N LONG. = 103.8485583°W NMSP EAST (FT) N = 601711.78 E = 690537.57

FIRST PERFORATION POINT: 590' FNL & 340' FEL



PROJECT AREA



PRODUCING AREA

DRILLING PROGRAM

Devon Energy Production Company, LP

Bootes 15 Fed Com 1H

Surface Location: 50' FNL & 340' FEL, Unit A, Sec 15 T19S R31E, Eddy, NM

Bottom hole Location: 340' FSL & 340' FEL, Unit P, Sec 15 T19S R31E, Eddy, NM

1. Geologic Name of Surface Formation

- a. Quaternary Alluvium

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

a. Quaternary Alluvium	140'	Fresh Water
b. Rustler	595'	Barren
c. Salado	870'	Barren
d. Base Salado	2195'	Barren
e. Tansil Dolomite	2270'	Barren
f. Yates	2395'	Barren
g. Seven Rivers	2625'	Barren
h. Capitan	2720'	Barren
i. B/Capitan	4385'	Barren
j. Delaware	4900'	Oil
k. Bone Springs	6825'	Oil
l. 1 st Bone Spring Ss	8175'	Oil
m. 2 nd Bone Spring Lime	8435'	Oil
n. 2 nd Bone Spring Ss	8925'	Oil
o. 2 nd Bone Spring Up'r Ss	8985'	Oil
p. 2 nd Bone Spring Up'r Ss Base	9060'	Oil
q. 2 nd Bone Spring Middle Ss	9080'	Oil
r. 2 nd Bone Spring Middle Ss Base	9160'	Oil
s. 3rd Bone Spring Lm	9340'	Oil
t. Pilot Hole	9455'	
u. Total Depth	MTVD 9170' MD 13766'	

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 20" casing at 750' and 13 3/8" casing at 2650' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 4500' and circulating cement to surface. The Delaware 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:

<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>
<i>See COA</i> 26"	0-750' 675	20"	0-750' 675	94#	BTC	J/K-55
17 1/2"	750-2650'	13 3/8"	0'-2650'	61#	BTC	J/K-55
12 1/4"	2650'-4500'	9 5/8"	0'-4500'	36#	LTC	HCK-55
8 3/4"	4500'-8300'	5 1/2"	0'-8300'	17#	LTC	HCP-110
8 3/4"	8300'-13766'	5 1/2"	8300'-13766'	17#	BTC	HCP-110

Max TVD: 9,170' in the lateral hole section

An 8 3/4" pilot hole will be drilled to 9455, and plugged back to KOP with approx 385 sxs CI H, 15.6 ppg, 1.18 cf/sx cement.

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
20"	1.48	6.01	18.42
13 3/8"	2.29	1.14	6.07
9 5/8"	1.22	1.88	2.95
5 1/2" LTC	1.64	2.02	1.55
5 1/2" BTC	1.84	2.27	5.22

4. Cement Program: (Note: All cement volumes are calculated with 25% excesses.)

- a. 20" Surface **Lead:** 955 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 81.4% Fresh Water, 13.5 ppg, Yield: 1.73 cf/sk.

Tail: 500 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg, Yield: 1.35 cf/sk. **TOC @ surface**

- b. 13 3/8" Intermediate **Lead:** 1820 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 1% bwoc Sodium Metasilicate + 3 lbs/sack LCM-1 + 89.7% Fresh Water, 12.6 ppg, Yield: 1.73 cf/sk.

Tail: 500 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.3% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% Fresh Water, 13.8 ppg, Yield: 1.38 cf/sk. **TOC @ surface**

c. 9 5/8" Intermediate

1st Stage

Lead: 550 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 1% bwoc Sodium Metasilicate + 89.7% Fresh Water, 12.6 ppg. Yield: 1.73 cf/sk.

Tail: 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% Fresh Water, 13.8 ppg. Yield: 1.38 cf/sk.

DV tool and ECP at 2,600-ft (~~approx 120-ft above the reef top~~)

2nd Stage

Lead: 600 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 1% bwoc Sodium Metasilicate + 89.7% Fresh Water, 12.6 ppg. Yield: 1.73 cf/sk.

Tail: 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% Fresh Water, 13.8 ppg. Yield: 1.38 cf/sk. **TOC @ surface**

d. 5 1/2" Production

1st Lead: 675 sacks (50:50) Poz (Fly Ash):Class H Cement + 10% bwoc Bentonite + 0.3% bwoc R-21 + 0.3% bwoc ASA-301 + 0.5% bwoc FL-52 + 130.7% Fresh Water, 11.8 ppg. **Yield:** 2.3 cf/sk.

2nd Lead: 530 sacks (35:65) Poz (Fly Ash):Class H Cement + 3% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 + 6% bwoc Bentonite + 105.4% Fresh Water, 12.5 ppg. **Yield:** 2.0 cf/sk.

Tail: 1330 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc FL-52 + 0.45% bwoc Sodium Metasilicate + 57.2% Fresh Water, 14.2 ppg. **Yield:** 1.28 cf/sk. **TOC @ 2500'.**

TOC for All Strings:

Surface: 0'

Intermediate 1: 0'

Intermediate 2: 0'

Production: 2,500' (approximately 200' above reef top)

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 BOP system used to drill the **17-1/2" hole** will consist of a **20" 2M Annular preventer**. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **2M system** prior to drilling out the casing shoe.

The BOP system used to drill the **12-1/4" and 8-3/4" holes** will consist of a **13-5/8" 3M Triple Ram and Annular preventer**. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **3M system** prior to drilling out the casing shoe.

The pipe rams will be operated and checked as per Onshore Order No 2. 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 annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at **3,000 psi WP**.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

6. **Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 750' ⁶⁷⁵	8.4-9.0	30-34	N/C	Fresh Water
750' - 2650'	9.8-10.0	28-32	N/C	Brine
2650' - 4500'	8.4-9.0	28-30	N/C	Fresh Water
4500' - 13766'	8.6-9.0	28-32	N/C-12	Fresh Water

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 20" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 20" 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.
 - Total Depth to Surface Compensated Neutron with Gamma Ray
 - No coring program is planned
 - Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. Possible 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 3800 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.

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.
-

9. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. Possible 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 3800 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.

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.



Devon Energy, Inc.

Eddy County

Bootes 15 Federal Com

#1H

OH

Plan: Plan #1

PathfinderX & Y Report

06 March, 2012



A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Devon Energy, Inc	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	KB = 20 @ 3568.9usft (McVay-10)
Site:	Bootes 15 Federal Com	MD Reference:	KB = 20 @ 3568.9usft (McVay-10)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Bootes 15 Federal Com			
Site Position:		Northing:	606,932.900 usft	Latitude:	32° 40' 3.319 N
From:	Map	Easting:	688,851.140 usft	Longitude:	103° 51' 14.260 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.26 °

Well	#1H					
Well Position	+N/-S	0 0 usft	Northing:	606,941.150 usft	Latitude:	32° 40' 3.342 N
	+E/-W	0.0 usft	Easting:	690,160.830 usft	Longitude:	103° 50' 58.938 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	3,548.9 usft

Wellbore:		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/6/2012	7.65	60.56	48,818

Design		Plan #1		
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	179.60

Survey Tool Program		Date - 3/6/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	13,766.0	Plan #1 (OH)	Pathfinder	Pathfinder MWD



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	KB = 20 @ 3568.9usft (McVay 10)
Site:	Bootes 15 Federal Com	MD Reference:	KB = 20 @ 3568.9usft (McVay 10)
Well:	#1H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,568.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
100.0	0.00	0.00	100.0	-3,468.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
200.0	0.00	0.00	200.0	-3,368.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
300.0	0.00	0.00	300.0	-3,268.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
400.0	0.00	0.00	400.0	-3,168.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
500.0	0.00	0.00	500.0	-3,068.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
600.0	0.00	0.00	600.0	-2,968.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
700.0	0.00	0.00	700.0	-2,868.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
800.0	0.00	0.00	800.0	-2,768.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
900.0	0.00	0.00	900.0	-2,668.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,000.0	0.00	0.00	1,000.0	-2,568.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,100.0	0.00	0.00	1,100.0	-2,468.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,200.0	0.00	0.00	1,200.0	-2,368.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,300.0	0.00	0.00	1,300.0	-2,268.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,400.0	0.00	0.00	1,400.0	-2,168.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,500.0	0.00	0.00	1,500.0	-2,068.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,600.0	0.00	0.00	1,600.0	-1,968.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,700.0	0.00	0.00	1,700.0	-1,868.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,800.0	0.00	0.00	1,800.0	-1,768.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
1,900.0	0.00	0.00	1,900.0	-1,668.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,000.0	0.00	0.00	2,000.0	-1,568.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,100.0	0.00	0.00	2,100.0	-1,468.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,200.0	0.00	0.00	2,200.0	-1,368.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,300.0	0.00	0.00	2,300.0	-1,268.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,400.0	0.00	0.00	2,400.0	-1,168.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,500.0	0.00	0.00	2,500.0	-1,068.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,600.0	0.00	0.00	2,600.0	-968.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	KB = 20' @ 3568.9usft (McVay 10)
Site:	Bootes 15 Federal Com	MD Reference:	KB = 20' @ 3568.9usft (McVay 10)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000:1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,700.0	0.00	0.00	2,700.0	-868.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,800.0	0.00	0.00	2,800.0	-768.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
2,900.0	0.00	0.00	2,900.0	-668.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,000.0	0.00	0.00	3,000.0	-568.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,100.0	0.00	0.00	3,100.0	-468.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,200.0	0.00	0.00	3,200.0	-368.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,300.0	0.00	0.00	3,300.0	-268.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,400.0	0.00	0.00	3,400.0	-168.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,500.0	0.00	0.00	3,500.0	-68.9	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,600.0	0.00	0.00	3,600.0	31.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,700.0	0.00	0.00	3,700.0	131.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,800.0	0.00	0.00	3,800.0	231.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
3,900.0	0.00	0.00	3,900.0	331.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,000.0	0.00	0.00	4,000.0	431.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,100.0	0.00	0.00	4,100.0	531.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,200.0	0.00	0.00	4,200.0	631.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,300.0	0.00	0.00	4,300.0	731.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,400.0	0.00	0.00	4,400.0	831.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,500.0	0.00	0.00	4,500.0	931.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,600.0	0.00	0.00	4,600.0	1,031.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,700.0	0.00	0.00	4,700.0	1,131.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,800.0	0.00	0.00	4,800.0	1,231.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
4,900.0	0.00	0.00	4,900.0	1,331.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,000.0	0.00	0.00	5,000.0	1,431.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,100.0	0.00	0.00	5,100.0	1,531.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,200.0	0.00	0.00	5,200.0	1,631.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,300.0	0.00	0.00	5,300.0	1,731.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H:
Project:	Eddy County	TVD Reference:	KB = 20 @ 3568.9usft (McVay 10)
Site:	Bootes 15 Federal Com	MD Reference:	KB = 20 @ 3568.9usft (McVay 10)
Well:	#1H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000:1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
5,400.0	0.00	0.00	5,400.0	1,831.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,500.0	0.00	0.00	5,500.0	1,931.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,600.0	0.00	0.00	5,600.0	2,031.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,700.0	0.00	0.00	5,700.0	2,131.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,800.0	0.00	0.00	5,800.0	2,231.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
5,900.0	0.00	0.00	5,900.0	2,331.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,000.0	0.00	0.00	6,000.0	2,431.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,100.0	0.00	0.00	6,100.0	2,531.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,200.0	0.00	0.00	6,200.0	2,631.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,300.0	0.00	0.00	6,300.0	2,731.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,400.0	0.00	0.00	6,400.0	2,831.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,500.0	0.00	0.00	6,500.0	2,931.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,600.0	0.00	0.00	6,600.0	3,031.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,700.0	0.00	0.00	6,700.0	3,131.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,800.0	0.00	0.00	6,800.0	3,231.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
6,900.0	0.00	0.00	6,900.0	3,331.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,000.0	0.00	0.00	7,000.0	3,431.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,100.0	0.00	0.00	7,100.0	3,531.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,200.0	0.00	0.00	7,200.0	3,631.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,300.0	0.00	0.00	7,300.0	3,731.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,400.0	0.00	0.00	7,400.0	3,831.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,500.0	0.00	0.00	7,500.0	3,931.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,600.0	0.00	0.00	7,600.0	4,031.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,700.0	0.00	0.00	7,700.0	4,131.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,800.0	0.00	0.00	7,800.0	4,231.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
7,900.0	0.00	0.00	7,900.0	4,331.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,000.0	0.00	0.00	8,000.0	4,431.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H:
Project:	Eddy County	TVD Reference:	KB = 20 @ 3568.9usft (McVay 10)
Site:	Bootes 15 Federal Com	MD Reference:	KB = 20 @ 3568.9usft (McVay 10)
Well:	#1H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db.

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,100.0	0.00	0.00	8,100.0	4,531.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,200.0	0.00	0.00	8,200.0	4,631.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,300.0	0.00	0.00	8,300.0	4,731.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,400.0	0.00	0.00	8,400.0	4,831.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,500.0	0.00	0.00	8,500.0	4,931.1	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,547.1	0.00	0.00	8,547.1	4,978.2	0.0	0.0	0.0	0.00	606,941.15	690,160.83	
8,550.0	0.29	179.60	8,550.0	4,981.1	0.0	0.0	0.0	10.00	606,941.14	690,160.83	
8,600.0	5.29	179.60	8,599.9	5,031.0	-2.4	0.0	2.4	10.00	606,938.71	690,160.85	
8,650.0	10.29	179.60	8,649.4	5,080.5	-9.2	0.1	9.2	10.00	606,931.93	690,160.89	
8,700.0	15.29	179.60	8,698.2	5,129.3	-20.3	0.1	20.3	10.00	606,920.87	690,160.97	
8,750.0	20.29	179.60	8,745.8	5,176.9	-35.6	0.3	35.6	10.00	606,905.60	690,161.08	
8,800.0	25.29	179.60	8,791.9	5,223.0	-54.9	0.4	54.9	10.00	606,886.24	690,161.22	
8,850.0	30.29	179.60	8,836.1	5,267.2	-78.2	0.6	78.2	10.00	606,862.93	690,161.38	
8,900.0	35.29	179.60	8,878.1	5,309.2	-105.3	0.7	105.3	10.00	606,835.86	690,161.57	
8,950.0	40.29	179.60	8,917.6	5,348.7	-135.9	1.0	135.9	10.00	606,805.24	690,161.79	
9,000.0	45.29	179.60	8,954.3	5,385.4	-169.9	1.2	169.9	10.00	606,771.28	690,162.02	
9,050.0	50.29	179.60	8,987.9	5,419.0	-206.9	1.5	206.9	10.00	606,734.26	690,162.29	
9,100.0	55.29	179.60	9,018.1	5,449.2	-246.7	1.7	246.7	10.00	606,694.45	690,162.57	
9,150.0	60.29	179.60	9,044.7	5,475.8	-289.0	2.0	289.0	10.00	606,652.16	690,162.86	
9,200.0	65.29	179.60	9,067.6	5,498.7	-333.4	2.3	333.4	10.00	606,607.71	690,163.18	
9,250.0	70.29	179.60	9,086.5	5,517.6	-379.7	2.7	379.7	10.00	606,561.44	690,163.50	
9,300.0	75.29	179.60	9,101.3	5,532.4	-427.5	3.0	427.5	10.00	606,513.69	690,163.84	
9,350.0	80.29	179.60	9,111.8	5,542.9	-476.3	3.4	476.3	10.00	606,464.84	690,164.18	
9,400.0	85.29	179.60	9,118.1	5,549.2	-525.9	3.7	525.9	10.00	606,415.25	690,164.53	
9,440.5	89.34	179.60	9,120.0	5,551.1	-566.3	4.0	566.3	10.00	606,374.83	690,164.81	
9,500.0	89.34	179.60	9,120.7	5,551.8	-625.8	4.4	625.9	0.00	606,315.31	690,165.23	
9,600.0	89.34	179.60	9,121.9	5,553.0	-725.8	5.1	725.8	0.00	606,215.32	690,165.94	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well: #1H
Project:	Eddy County	TVD Reference:	KB = 20 @ 3568.9usft (McVay:10)
Site:	Bootes-15 Federal Com	MD Reference:	KB = 20 @ 3568.9usft (McVay:10)
Well:	#1H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (%/100usft)	Northing (usft)	Easting (usft)	
9,700.0	89.34	179.60	9,123.0	5,554.1	-825.8	5.8	825.8	0.00	606,115.33	690,166.64	
9,800.0	89.34	179.60	9,124.2	5,555.3	-925.8	6.5	925.8	0.00	606,015.34	690,167.34	
9,900.0	89.34	179.60	9,125.3	5,556.4	-1,025.8	7.2	1,025.8	0.00	605,915.35	690,168.05	
10,000.0	89.34	179.60	9,126.5	5,557.6	-1,125.8	7.9	1,125.8	0.00	605,815.36	690,168.75	
10,100.0	89.34	179.60	9,127.6	5,558.7	-1,225.8	8.6	1,225.8	0.00	605,715.37	690,169.45	
10,200.0	89.34	179.60	9,128.8	5,559.9	-1,325.8	9.3	1,325.8	0.00	605,615.38	690,170.16	
10,300.0	89.34	179.60	9,130.0	5,561.1	-1,425.8	10.0	1,425.8	0.00	605,515.38	690,170.86	
10,400.0	89.34	179.60	9,131.1	5,562.2	-1,525.8	10.7	1,525.8	0.00	605,415.39	690,171.56	
10,500.0	89.34	179.60	9,132.3	5,563.4	-1,625.7	11.4	1,625.8	0.00	605,315.40	690,172.27	
10,600.0	89.34	179.60	9,133.4	5,564.5	-1,725.7	12.1	1,725.8	0.00	605,215.41	690,172.97	
10,700.0	89.34	179.60	9,134.6	5,565.7	-1,825.7	12.8	1,825.8	0.00	605,115.42	690,173.67	
10,800.0	89.34	179.60	9,135.7	5,566.8	-1,925.7	13.5	1,925.8	0.00	605,015.43	690,174.38	
10,900.0	89.34	179.60	9,136.9	5,568.0	-2,025.7	14.3	2,025.8	0.00	604,915.44	690,175.08	
11,000.0	89.34	179.60	9,138.0	5,569.1	-2,125.7	15.0	2,125.8	0.00	604,815.45	690,175.78	
11,100.0	89.34	179.60	9,139.2	5,570.3	-2,225.7	15.7	2,225.7	0.00	604,715.46	690,176.49	
11,200.0	89.34	179.60	9,140.3	5,571.4	-2,325.7	16.4	2,325.7	0.00	604,615.47	690,177.19	
11,300.0	89.34	179.60	9,141.5	5,572.6	-2,425.7	17.1	2,425.7	0.00	604,515.48	690,177.89	
11,400.0	89.34	179.60	9,142.7	5,573.8	-2,525.7	17.8	2,525.7	0.00	604,415.49	690,178.60	
11,500.0	89.34	179.60	9,143.8	5,574.9	-2,625.7	18.5	2,625.7	0.00	604,315.49	690,179.30	
11,600.0	89.34	179.60	9,145.0	5,576.1	-2,725.6	19.2	2,725.7	0.00	604,215.50	690,180.00	
11,700.0	89.34	179.60	9,146.1	5,577.2	-2,825.6	19.9	2,825.7	0.00	604,115.51	690,180.71	
11,800.0	89.34	179.60	9,147.3	5,578.4	-2,925.6	20.6	2,925.7	0.00	604,015.52	690,181.41	
11,900.0	89.34	179.60	9,148.4	5,579.5	-3,025.6	21.3	3,025.7	0.00	603,915.53	690,182.11	
12,000.0	89.34	179.60	9,149.6	5,580.7	-3,125.6	22.0	3,125.7	0.00	603,815.54	690,182.82	
12,100.0	89.34	179.60	9,150.7	5,581.8	-3,225.6	22.7	3,225.7	0.00	603,715.55	690,183.52	
12,200.0	89.34	179.60	9,151.9	5,583.0	-3,325.6	23.4	3,325.7	0.00	603,615.56	690,184.22	
12,300.0	89.34	179.60	9,153.1	5,584.2	-3,425.6	24.1	3,425.7	0.00	603,515.57	690,184.93	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	KB = 20 @ 3568.9usft. (McVay 10)
Site:	Bootes 15 Federal Com	MD Reference:	KB = 20 @ 3568.9usft. (McVay 10)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
12,400.0	89.34	179.60	9,154.2	5,585.3	-3,525.6	24.8	3,525.7	0.00	603,415.58	690,185.63	
12,500.0	89.34	179.60	9,155.4	5,586.5	-3,625.6	25.5	3,625.7	0.00	603,315.59	690,186.33	
12,600.0	89.34	179.60	9,156.5	5,587.6	-3,725.6	26.2	3,725.6	0.00	603,215.60	690,187.04	
12,700.0	89.34	179.60	9,157.7	5,588.8	-3,825.5	26.9	3,825.6	0.00	603,115.60	690,187.74	
12,800.0	89.34	179.60	9,158.8	5,589.9	-3,925.5	27.6	3,925.6	0.00	603,015.61	690,188.44	
12,900.0	89.34	179.60	9,160.0	5,591.1	-4,025.5	28.3	4,025.6	0.00	602,915.62	690,189.15	
13,000.0	89.34	179.60	9,161.1	5,592.2	-4,125.5	29.0	4,125.6	0.00	602,815.63	690,189.85	
13,100.0	89.34	179.60	9,162.3	5,593.4	-4,225.5	29.7	4,225.6	0.00	602,715.64	690,190.55	
13,200.0	89.34	179.60	9,163.5	5,594.6	-4,325.5	30.4	4,325.6	0.00	602,615.65	690,191.26	
13,300.0	89.34	179.60	9,164.6	5,595.7	-4,425.5	31.1	4,425.6	0.00	602,515.66	690,191.96	
13,400.0	89.34	179.60	9,165.8	5,596.9	-4,525.5	31.8	4,525.6	0.00	602,415.67	690,192.66	
13,500.0	89.34	179.60	9,166.9	5,598.0	-4,625.5	32.5	4,625.6	0.00	602,315.68	690,193.37	
13,600.0	89.34	179.60	9,168.1	5,599.2	-4,725.5	33.2	4,725.6	0.00	602,215.69	690,194.07	
13,700.0	89.34	179.60	9,169.2	5,600.3	-4,825.5	33.9	4,825.6	0.00	602,115.70	690,194.78	
13,766.1	89.34	179.60	9,170.0	5,601.1	-4,891.5	34.4	4,891.7	0.00	602,049.61	690,195.24	

Checked By: _____ Approved By: _____ Date: _____

devon

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid



Azimuths to Grid North
True North: -0.26°
Magnetic North: 7.39°

Magnetic Field
Strength: 48818.1 nT
Dip Angle: 60.56°
Date: 3/6/2012
Model: IGRF200510

PATHFINDER®

A Schlumberger Company

Project: Eddy County
Site: Bootes 15 Federal Com
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)

WELL DETAILS #1H

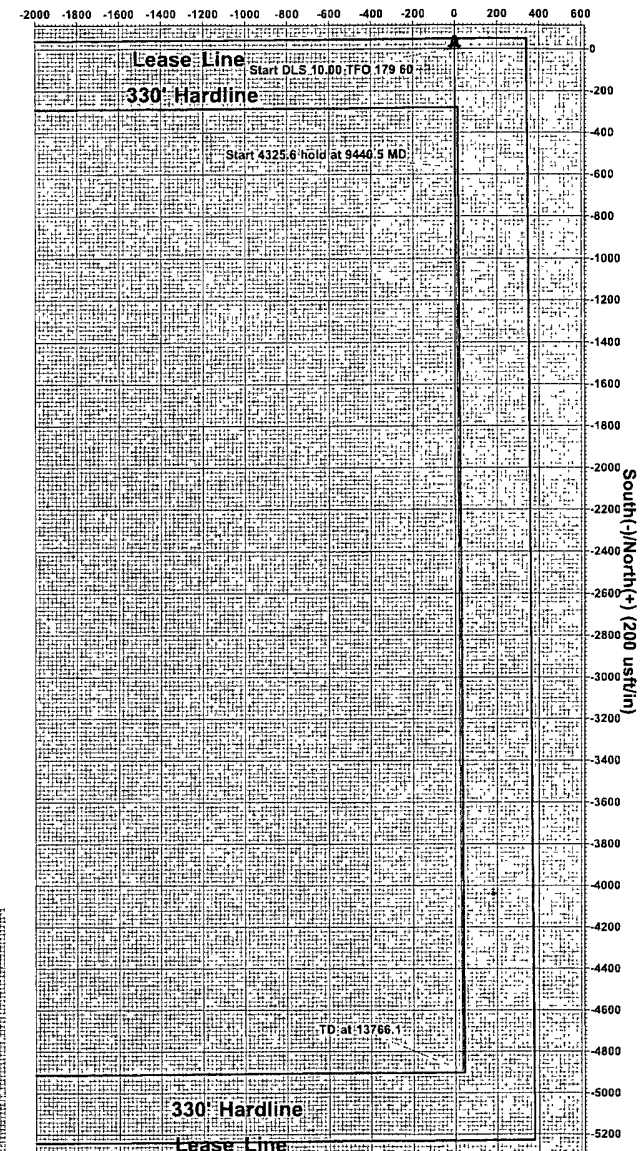
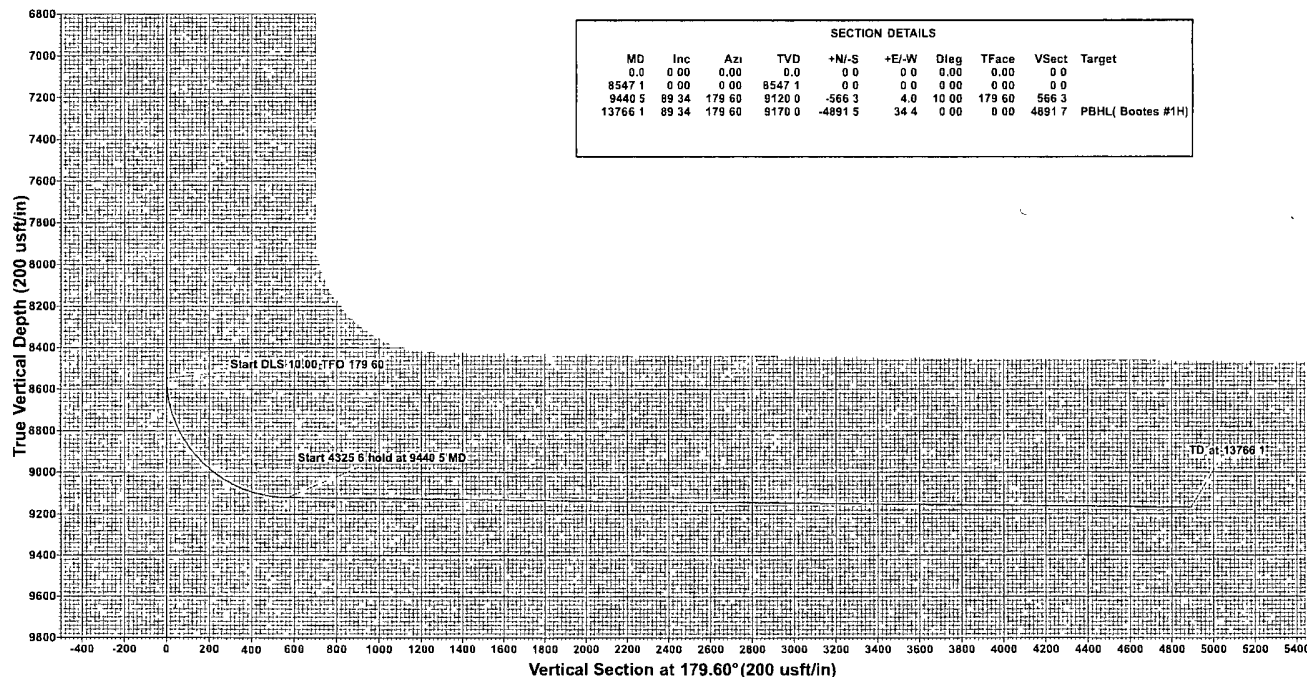
Ground Elevation: 3548.9		RKB Elevation: KB = 20 @ 3568.9usft (McVay 10)		Rig Name: McVay 10	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	606941.150	690160.830	32° 40' 3.342 N	103° 50' 5.8938 W
		Slot			

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(Bootes #1H)	9170.0	-4891.5	34.4	602049.610	690195.240	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dlog	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
8547.1	0.00	0.00	8547.1	0.0	0.0	0.00	0.00	0.0	
9440.5	89.34	179.60	9120.0	-566.3	4.0	10.00	179.60	566.3	
13766.1	89.34	179.60	9170.0	-4891.5	34.4	0.00	0.00	4891.7	PBHL(Bootes #1H)



Plan Plan #1 (#1H/OH)

Created By: Sam Biffle Date: 13.30, March 06 2012

Checked: _____ Date: _____

Small text block containing technical details and a signature line.

 HEADER INFORMATION -----

COMPANY : Devon Energy, Inc.
 FIELD : Eddy County
 SITE : Bootes 15 Federal Com
 WELL : #1H
 WELLPATH: OH
 DEPTHUNT: usft

WELL INFORMATION

WELL EW MAP : 690160.83
 WELL NS MAP : 606941.15
 DATUM ELEVN : 3568.90
 VSECT ANGLE : 179.60
 VSECT NORTH : 0.00
 VSECT EAST : 0.00

SURVEY TYPE INFORMATION

H 0.00 - 13765.99 PLAN #1 : PATHFINDER

SURVEY LIST

MD	INC	AZI	TVD	VSEC	N/S	E/W
0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00

3900.00	0.00	0.00	3900.00	0.00	0.00	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00
5900.00	0.00	0.00	5900.00	0.00	0.00	0.00
6000.00	0.00	0.00	6000.00	0.00	0.00	0.00
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00
6200.00	0.00	0.00	6200.00	0.00	0.00	0.00
6300.00	0.00	0.00	6300.00	0.00	0.00	0.00
6400.00	0.00	0.00	6400.00	0.00	0.00	0.00
6500.00	0.00	0.00	6500.00	0.00	0.00	0.00
6600.00	0.00	0.00	6600.00	0.00	0.00	0.00
6700.00	0.00	0.00	6700.00	0.00	0.00	0.00
6800.00	0.00	0.00	6800.00	0.00	0.00	0.00
6900.00	0.00	0.00	6900.00	0.00	0.00	0.00
7000.00	0.00	0.00	7000.00	0.00	0.00	0.00
7100.00	0.00	0.00	7100.00	0.00	0.00	0.00
7200.00	0.00	0.00	7200.00	0.00	0.00	0.00
7300.00	0.00	0.00	7300.00	0.00	0.00	0.00
7400.00	0.00	0.00	7400.00	0.00	0.00	0.00
7500.00	0.00	0.00	7500.00	0.00	0.00	0.00
7600.00	0.00	0.00	7600.00	0.00	0.00	0.00
7700.00	0.00	0.00	7700.00	0.00	0.00	0.00
7800.00	0.00	0.00	7800.00	0.00	0.00	0.00
7900.00	0.00	0.00	7900.00	0.00	0.00	0.00
8000.00	0.00	0.00	8000.00	0.00	0.00	0.00
8100.00	0.00	0.00	8100.00	0.00	0.00	0.00
8200.00	0.00	0.00	8200.00	0.00	0.00	0.00
8300.00	0.00	0.00	8300.00	0.00	0.00	0.00
8400.00	0.00	0.00	8400.00	0.00	0.00	0.00
8500.00	0.00	0.00	8500.00	0.00	0.00	0.00
8547.10	0.00	0.00	8547.10	0.00	0.00	0.00
8550.00	0.29	179.60	8550.00	0.01	-0.01	0.00
8600.00	5.29	179.60	8599.92	2.44	-2.44	0.02
8650.00	10.29	179.60	8649.45	9.22	-9.22	0.06
8700.00	15.29	179.60	8698.19	20.28	-20.28	0.14
8750.00	20.29	179.60	8745.79	35.55	-35.55	0.25
8800.00	25.29	179.60	8791.87	54.91	-54.91	0.39
8850.00	30.29	179.60	8836.09	78.22	-78.22	0.55
8900.00	35.29	179.60	8878.11	105.29	-105.29	0.74
8950.00	40.29	179.60	8917.61	135.92	-135.91	0.96
9000.00	45.29	179.60	8954.29	169.87	-169.87	1.19
9050.00	50.29	179.60	8987.87	206.89	-206.89	1.46
9100.00	55.29	179.60	9018.10	246.70	-246.70	1.74

9150.00	60.29	179.60	9044.74	288.99	-288.99	2.03
9200.00	65.29	179.60	9067.60	333.45	-333.44	2.35
9250.00	70.29	179.60	9086.49	379.72	-379.71	2.67
9300.00	75.29	179.60	9101.28	427.47	-427.46	3.01
9350.00	80.29	179.60	9111.85	476.32	-476.31	3.35
9400.00	85.29	179.60	9118.12	525.91	-525.90	3.70
9440.48	89.34	179.60	9120.02	566.34	-566.32	3.98
9500.00	89.34	179.60	9120.71	625.85	-625.84	4.40
9600.00	89.34	179.60	9121.86	725.85	-725.83	5.11
9700.00	89.34	179.60	9123.02	825.84	-825.82	5.81
9800.00	89.34	179.60	9124.17	925.83	-925.81	6.51
9900.00	89.34	179.60	9125.33	1025.83	-1025.80	7.22
10000.00	89.34	179.60	9126.48	1125.82	-1125.79	7.92
10100.00	89.34	179.60	9127.64	1225.81	-1225.78	8.62
10200.00	89.34	179.60	9128.80	1325.81	-1325.77	9.33
10300.00	89.34	179.60	9129.95	1425.80	-1425.77	10.03
10400.00	89.34	179.60	9131.11	1525.79	-1525.76	10.73
10500.00	89.34	179.60	9132.26	1625.79	-1625.75	11.44
10600.00	89.34	179.60	9133.42	1725.78	-1725.74	12.14
10700.00	89.34	179.60	9134.57	1825.77	-1825.73	12.84
10800.00	89.34	179.60	9135.73	1925.77	-1925.72	13.55
10900.00	89.34	179.60	9136.88	2025.76	-2025.71	14.25
11000.00	89.34	179.60	9138.04	2125.75	-2125.70	14.95
11100.00	89.34	179.60	9139.19	2225.75	-2225.69	15.66
11200.00	89.34	179.60	9140.35	2325.74	-2325.68	16.36
11300.00	89.34	179.60	9141.51	2425.73	-2425.67	17.06
11400.00	89.34	179.60	9142.66	2525.73	-2525.66	17.77
11500.00	89.34	179.60	9143.82	2625.72	-2625.66	18.47
11600.00	89.34	179.60	9144.97	2725.71	-2725.65	19.17
11700.00	89.34	179.60	9146.13	2825.71	-2825.64	19.88
11800.00	89.34	179.60	9147.28	2925.70	-2925.63	20.58
11900.00	89.34	179.60	9148.44	3025.69	-3025.62	21.28
12000.00	89.34	179.60	9149.59	3125.69	-3125.61	21.99
12100.00	89.34	179.60	9150.75	3225.68	-3225.60	22.69
12200.00	89.34	179.60	9151.90	3325.67	-3325.59	23.39
12300.00	89.34	179.60	9153.06	3425.67	-3425.58	24.10
12400.00	89.34	179.60	9154.22	3525.66	-3525.57	24.80
12500.00	89.34	179.60	9155.37	3625.65	-3625.56	25.50
12600.00	89.34	179.60	9156.53	3725.65	-3725.55	26.21
12700.00	89.34	179.60	9157.68	3825.64	-3825.55	26.91
12800.00	89.34	179.60	9158.84	3925.63	-3925.54	27.61
12900.00	89.34	179.60	9159.99	4025.63	-4025.53	28.32
13000.00	89.34	179.60	9161.15	4125.62	-4125.52	29.02
13100.00	89.34	179.60	9162.30	4225.61	-4225.51	29.72
13200.00	89.34	179.60	9163.46	4325.61	-4325.50	30.43
13300.00	89.34	179.60	9164.61	4425.60	-4425.49	31.13
13400.00	89.34	179.60	9165.77	4525.59	-4525.48	31.83
13500.00	89.34	179.60	9166.93	4625.59	-4625.47	32.54
13600.00	89.34	179.60	9168.08	4725.58	-4725.46	33.24
13700.00	89.34	179.60	9169.24	4825.57	-4825.45	33.95
13766.09	89.34	179.60	9170.00	4891.66	-4891.54	34.41

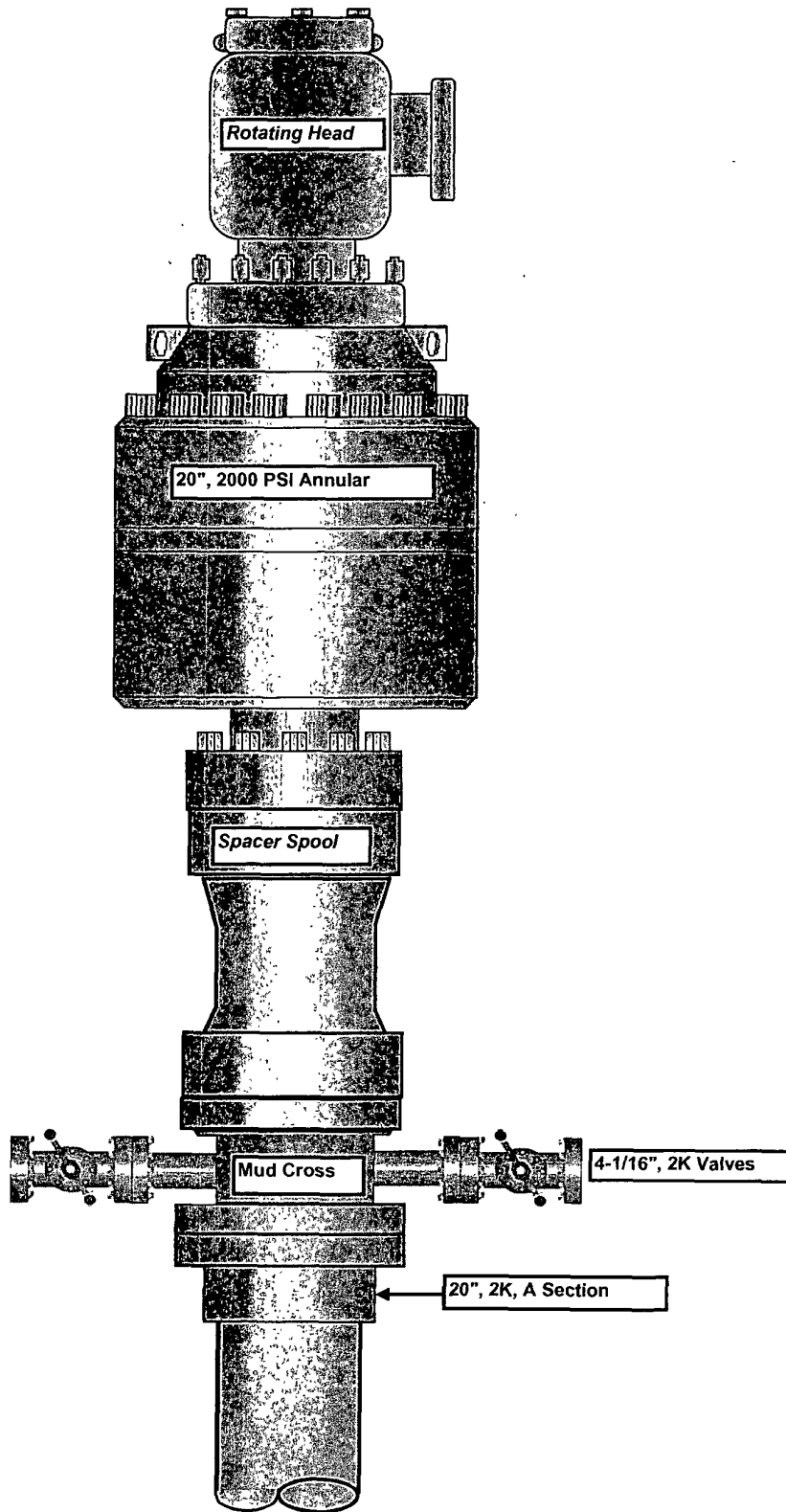
Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP

Bootes 15 Fed Com 1H

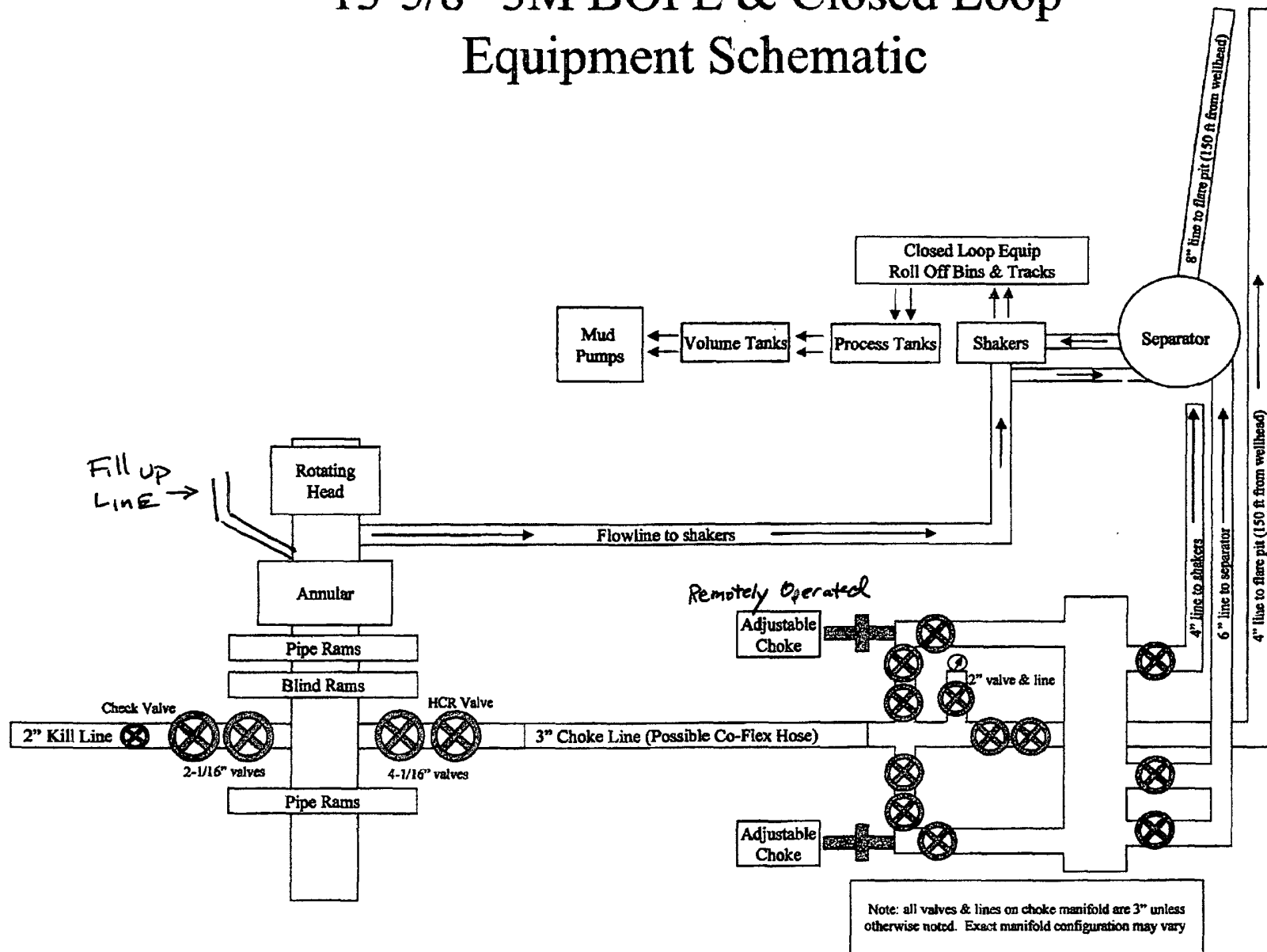
Surface Location: 50' FNL & 340' FEL, Unit A, Sec 15 T19S R31E, Eddy, NM
Bottom hole Location: 340' FSL & 340' FEL, Unit P, Sec 15 T19S R31E, Eddy, NM

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 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 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.

20" 2K Annular

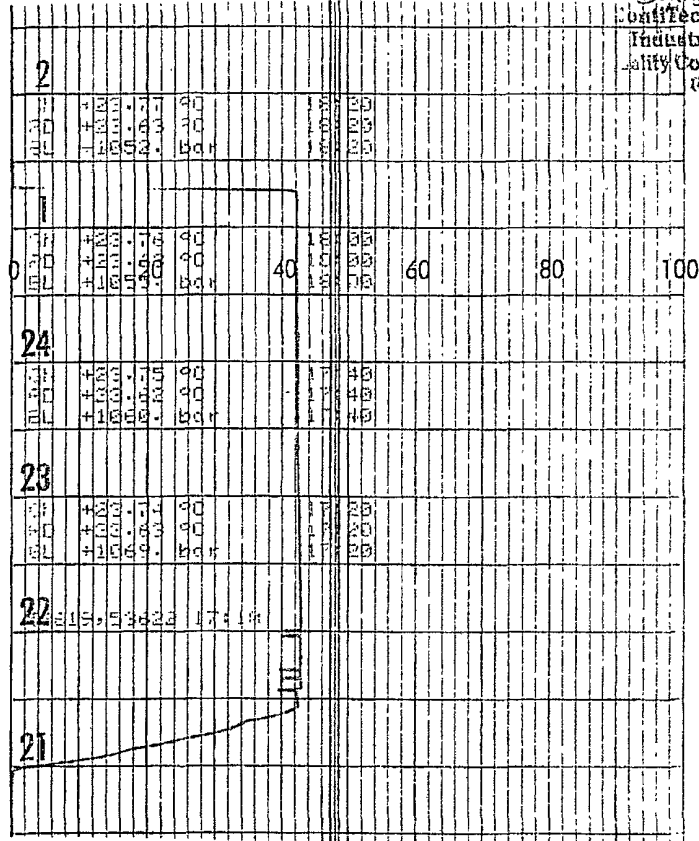


13-5/8" 3M BOPE & Closed Loop Equipment Schematic



Bank data
Commerzbank Zrt
Szeged
14220108-26830003-00000000

HARTMANN &





Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

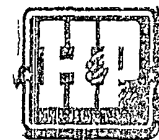
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

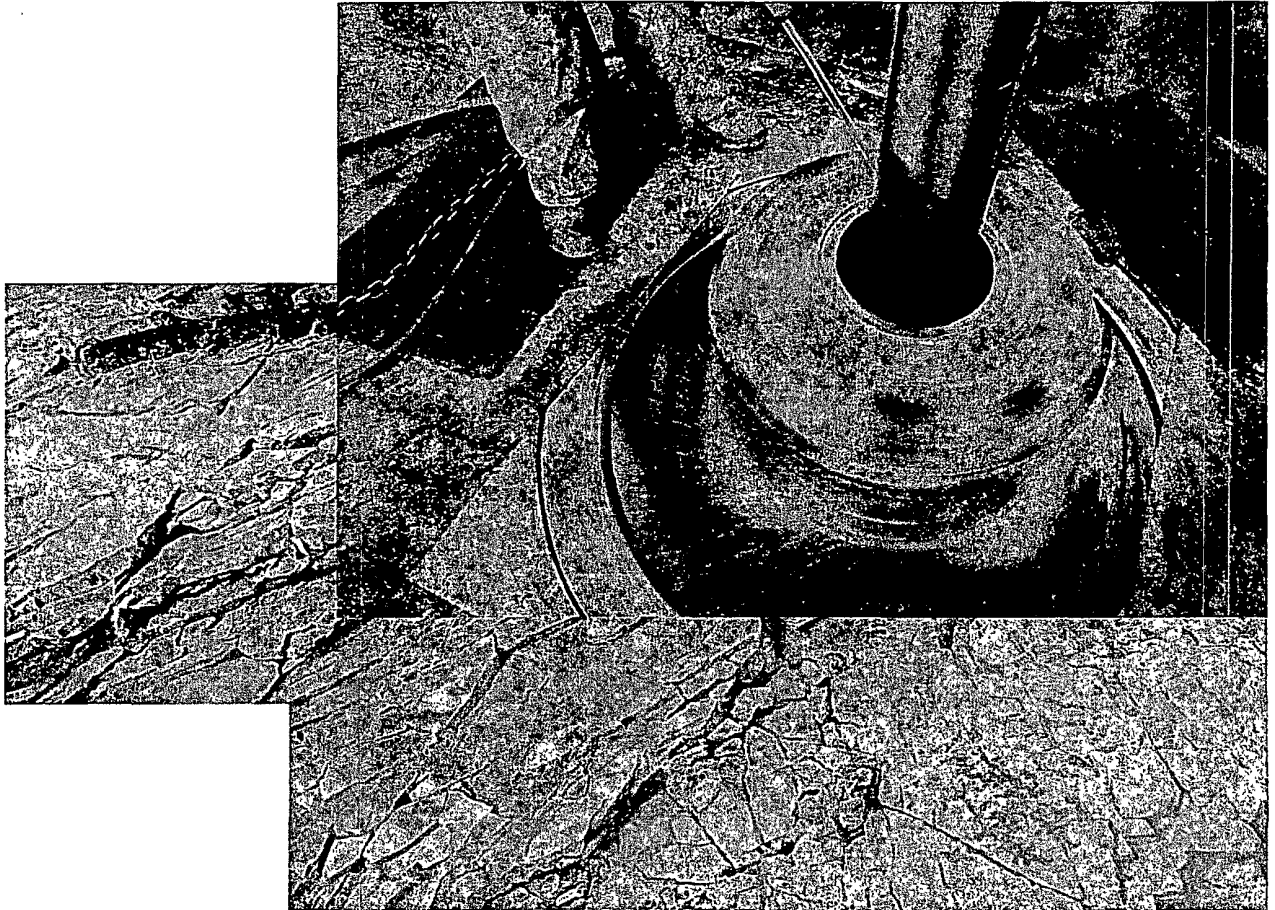
Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com





Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2008

I. Design Plan

Devon uses various high efficient closed loop systems (CLS). The CLS shown is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

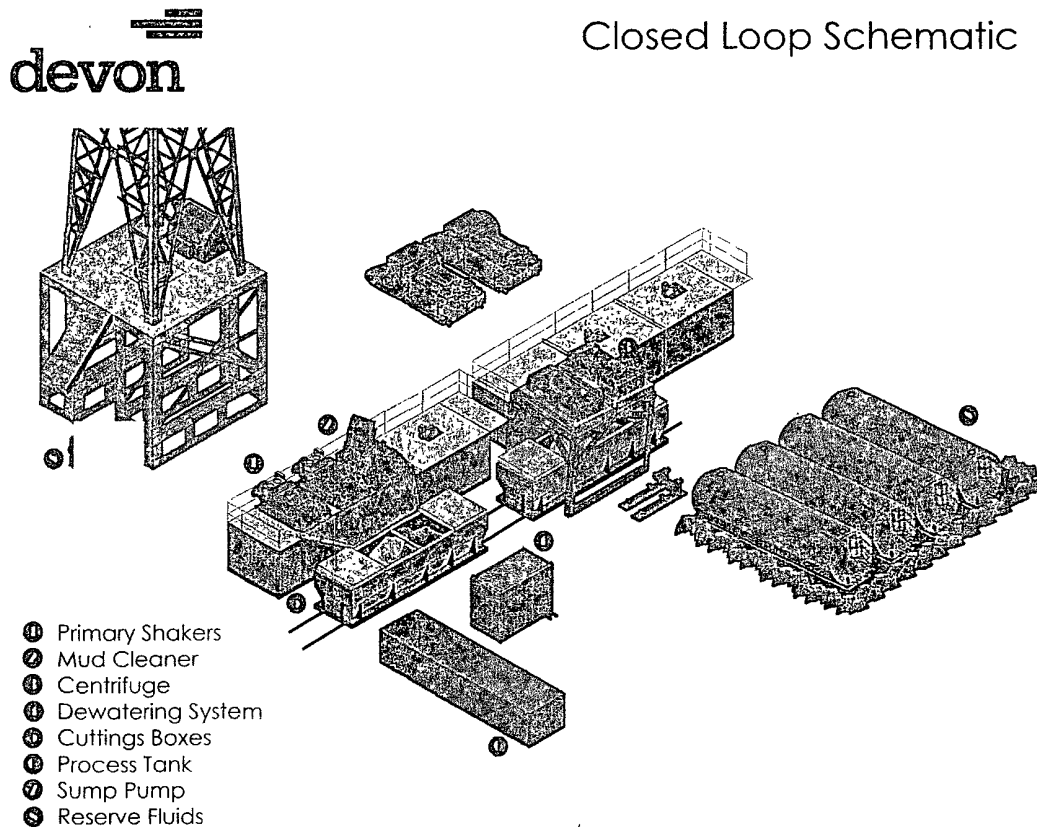
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be utilized depending on the well's anticipated solids volume. One or two centrifuges can be used depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds

ultra fine solids into a mass that is within the centrifuge operating design. The dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

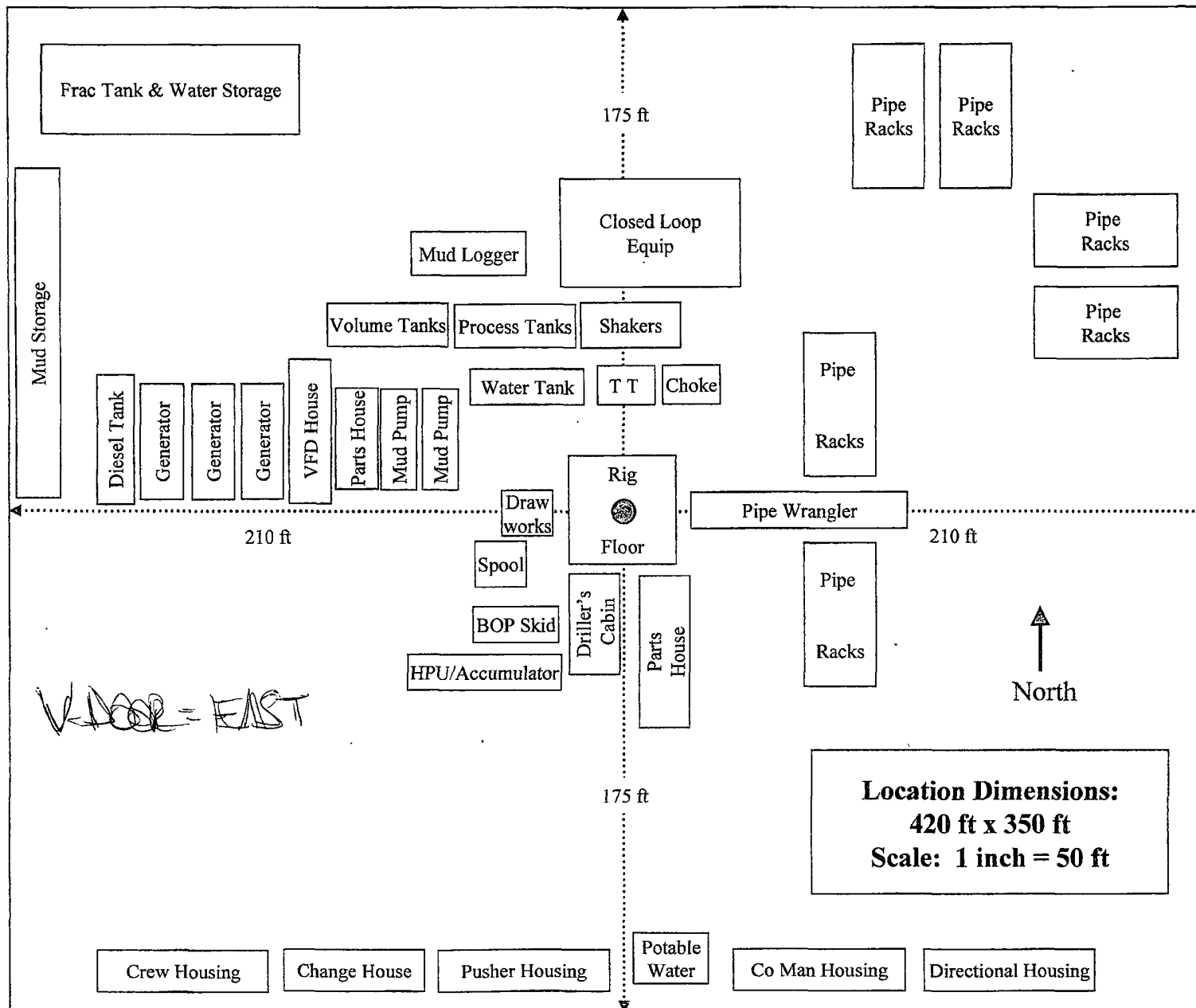
dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Solids Control service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

III. Closure Plan

A maximum 170' X 170' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

H&P Flex Rig Location Layout





**Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260**

Hydrogen Sulfide (H₂S) Contingency Plan

For

Bootes 15 Federal COM 2H

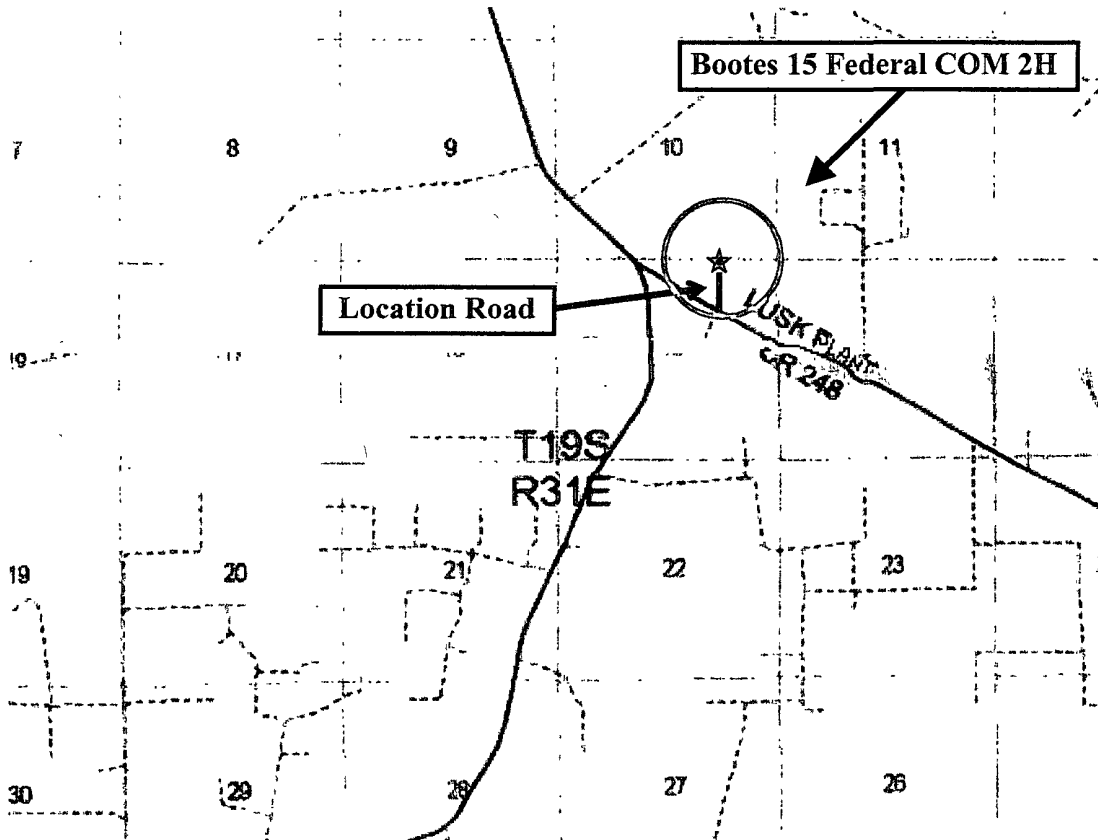
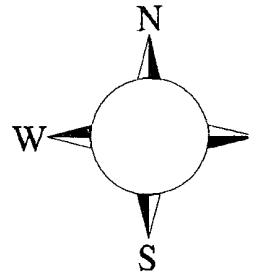
**Sec-15, T-19S R-31E
50' FNL & 1650' FEL,
LAT. = 32.6675887°N (NAD83)
LONG = 103.8539611°W**

Eddy County NM

RECEIVED
2012 APR 05 AM 9:14
BUREAU OF LAND MGMT
CARLSBAD FIELD OFFICE

Bootes 15 Federal COM 2H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H₂S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated South then Northwest or Southeast on Lusk Plant road. Crews should then block the road from both directions so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. Evacuation should continue if necessary West or South outside of the affected area. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico’s ‘Hazardous Materials Emergency Response Plan’ (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

2. Protective equipment for essential personnel:

- A. 30-minute SCBA units located in the doghouse and at briefing areas, as indicated on well site diagram. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

- A. Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 PPM are reached. These units are usually capable of detecting SO₂, which is a byproduct of burning H₂S.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate..

5. Mud program:

- A. The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephones and 2-way radio
- B. Land line (telephone) communications at Office

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Devon Energy Corp. Company Call List

<u>Artesia (575)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
Foreman – Roger Hernandez ..748-0169	748-5238.....	746-2991	
Asst. Foreman –Tommy Polly.748-5290.....	748-0165.....	748-2846	
Don Mayberry.....	748-5235	748-0164.....	746-4945
Brian Schultz	(575) 325-5623.....	746-9072.....	746-4945
Engineer – Steven Jones	(405) 596-8041....	(405) 552-7994	

Agency Call List

Lea

County (575)

Hobbs

State Police	392-5588
City Police	397-9265
Sheriff's Office.....	393-2515
Ambulance.....	911
Fire Department.....	397-9308
LEPC (Local Emergency Planning Committee)	393-2870
NMOCD	393-6161
US Bureau of Land Management.....	393-3612

Eddy

County (575)

Carlsbad

State Police	885-3137
City Police	885-2111
Sheriff's Office.....	887-7551
Ambulance.....	911
Fire Department.....	885-2111
LEPC (Local Emergency Planning Committee).....	887-3798
US Bureau of Land Management	887-6544
New Mexico Emergency Response Commission (Santa Fe) ...	(575)476-9600
24 HR	(575) 827-9126
National Emergency Response Center (Washington, DC) ..	(800) 424-8802

Emergency Services

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
Halliburton	(575) 746-2757
B. J. Services.....	(575) 746-3569

Give

GPS

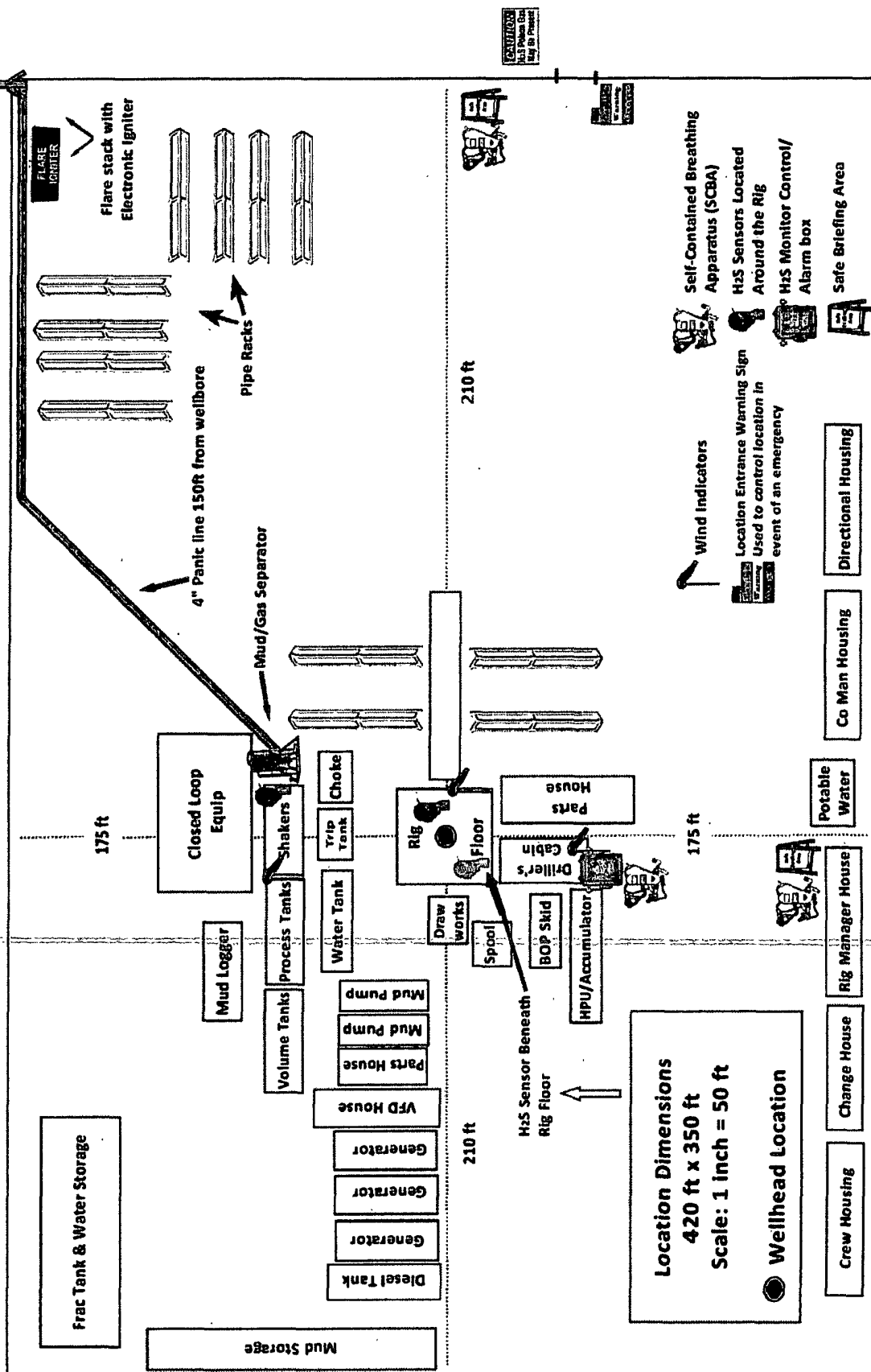
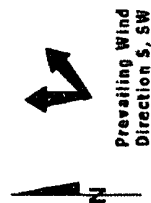
position:

Flight For Life - Lubbock, TX	(806) 743-9911
Aerocare - Lubbock, TX	(806) 747-8923
Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
Lifeguard Air Med Svc. Albuquerque, NM	(575) 272-3115

Prepared in conjunction with
Wade Rohloff



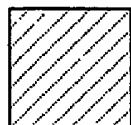
Devon Energy - Well Pad Rig Location Layout Safety Equipment Location



devon

**Proposed Interim
Site Reclamation**

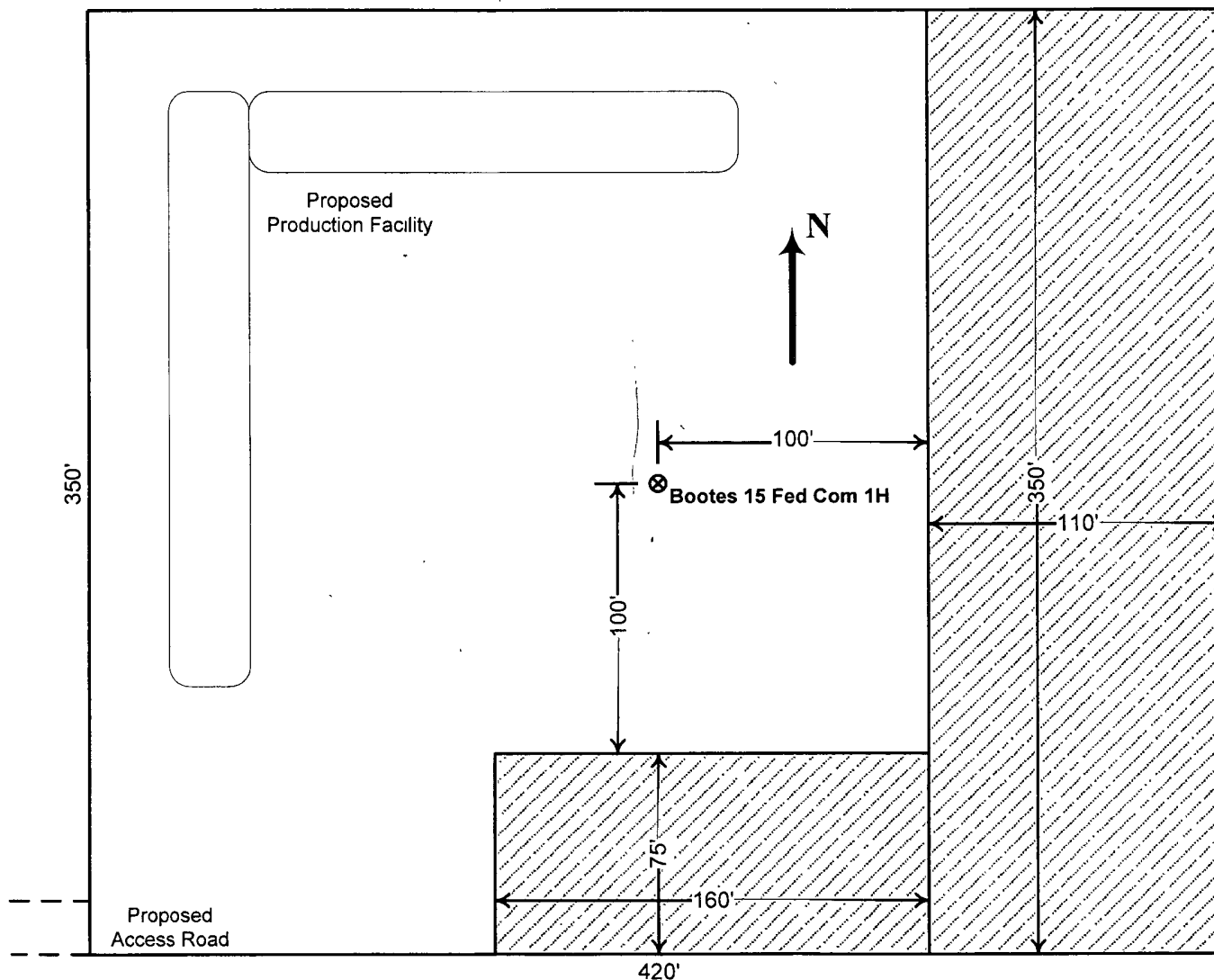
Devon Energy Production Co.
Bootes 15 Fed Com 1H
50' FNL & 340' FEL
Sec. 15-T19S-R31E
Eddy County, NM



Proposed
Reclamation
Area



Scale: 1 in = 60 ft.



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Co., LP
LEASE NO.:	NMNM 102040
WELL NAME & NO.:	Bootes 15 Fed Com 2H
SURFACE HOLE FOOTAGE:	50' FNL & 1650' FEL
BOTTOM HOLE FOOTAGE:	340' FSL & 1900' FEL
LOCATION:	Section 15, T. 19 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Communitization Agreement
- ☒ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - H₂S – Onshore Order #6
 - Logging Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☒ **Final Abandonment & Reclamation**