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OCD Hobbs

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Split Estate

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
USA NMNM 94186

6. If Indian, Allotee 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. (30884)
Thistle Unit #18H

2. Name of Operator
Devon Energy Production Co., LP (6137)

9. API Well No.
~~18H~~ 30-025-40010

3a. Address **20 North Broadway, OKC, OK 73102**

3b. Phone No. *(include area code)* **(405)-236-3511**

10. Field and Pool, or Exploratory
BRINNINGTON; **Delaware; ~~Brushy Canyon~~**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **NENW 150' FNL & 1470' FWL Unit C**
At proposed prod. zone **SESW 150' FSL & 2490' FWL Unit N**

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 28 T23S R33E

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

12. County or Parish **Lea**

13. State **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **150'**

16. No. of acres in lease **960 ac**

17. Spacing Unit dedicated to this well **160 acres**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **See attached map**

19. Proposed Depth **TVD 8,974' MD ~~13,513'~~ 13,180**

20. BLM/BIA Bond No. on file **CO-1104**

21. Elevations (Show whether DF, KDB, RT, GL, etc.) **3682' GL**

22. Approximate date work will start* **03/01/2011**

23. 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: Spence Laird | Name *(Printed/Typed)*: **Spence Laird** | Date: **09/30/2010**

Title: **Regulatory Analyst**

Approved by *(Signature)*: /s/ Don Peterson | Name *(Printed/Typed)*: | Date: JAN 7 2011

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)

NSL-6314

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Ka 01/13/2011

Carlsbad Controlled Water Basin

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED

JAN 11 2011

HOBBSOCD

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 and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised July 16, 2010

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-40010	96193	Brinninstool DELAWARE; ~~BRUSHY CANYON~~

Property Code	Property Name	Well Number
30884	THISTLE UNIT	18H

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3682'

Surface Location

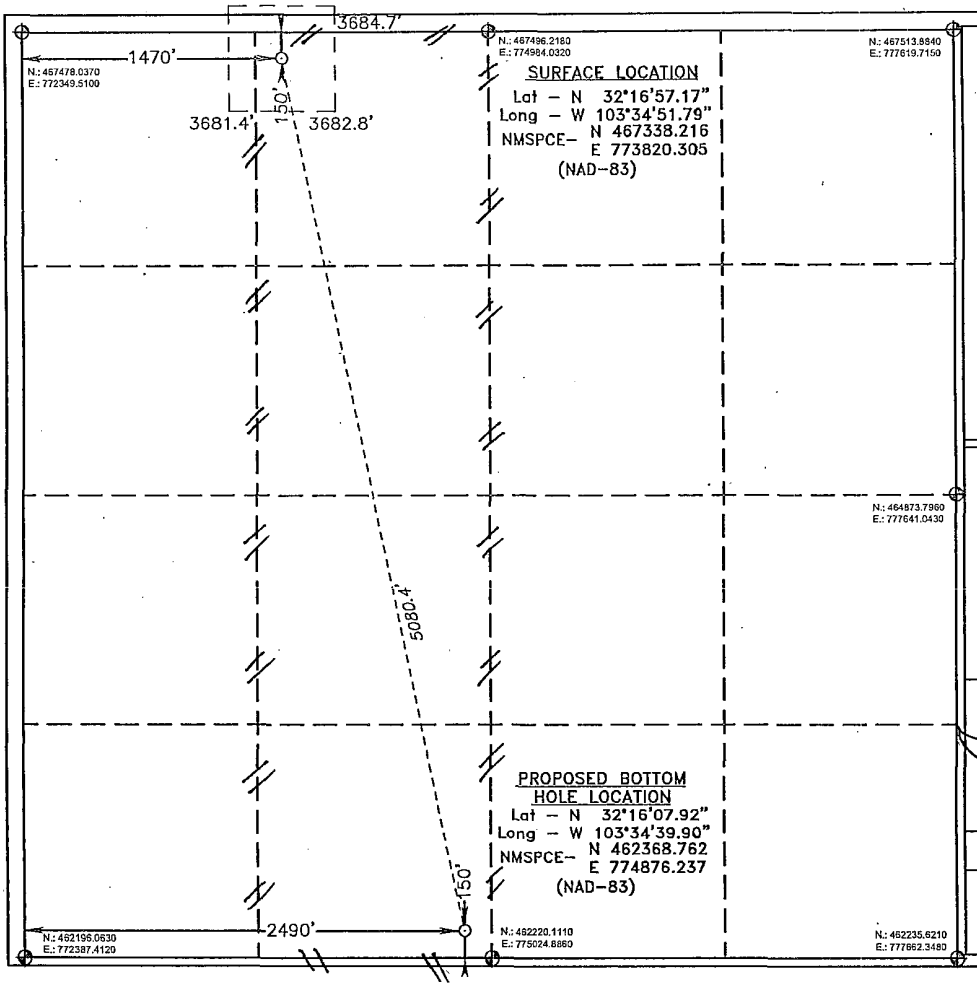
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	23 S	33 E		150	NORTH	1470	WEST	LEA

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
N	28	23 S	33 E		150	SOUTH	2490	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			NSL-6314

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



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 — Date: 10/1/10

SPENCE LAIRD
Printed Name

spence.laird@dvn.com
Email Address

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 supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 3, 2010
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES — NEW MEXICO — REGISTERED PROFESSIONAL LAND SURVEYOR — 7977

W.O. No. 23343

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 23343

DRILLING PROGRAM

Devon Energy Production Company, LP

Thistle Unit 18H

Surface Location: 150' FNL & 1470' FWL, Unit C, Sec 28 T23S R33E, Lea, NM

Bottom Location: ~~330'~~ 150 FSL & ~~1980'~~ 2490 FWL, Unit N, Sec 28 T23S R33E, Lea, NM Per Operator 12-28-10 DMJ

1. **Geologic Name of Surface Formation**

   a. Permian

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

a.	Rustler	1305'	Barren
b.	Top Salt	1358'	Barren
c.	Base Salt	2158'	Barren
d.	Delaware	5167'	Oil/Gas
e.	Cherry Canyon	6125'	Oil/Gas
f.	Brushy Canyon	7455'	Oil/Gas
g.	Top Brushy Pay Sand	8884'	Oil/Gas
h.	Landing Pt. in Brushy Canyon	8934'	Oil/Gas

TVD: ~~9859'~~ 9974' MD: ~~14,286'~~ 13810' Per Directional Survey

Pool Name: Delaware; Brushy Canyon

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 ~~1280'~~ 1420' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 5150' and circulating cement to surface. The production intervals will be isolated by setting 5 ½" 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 COA

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 1/2"	0'-~~1280'~~ 1420'	13 3/8"	0'-1280'	54.5#	BTC	K-55
12 ¼"	1420 ~~1280'~~-5150'	9 5/8"	0'-5150'	40#	BTC	N-80
8 ¾"	5150' -8200'	5 ½"	0-8200'	17#	LTC	HCP-110
8 ¾"	8200'- 13300'	5 ½"	8200'-~~13300'~~ 13610'	17#	BTC	HCP-110

Per Operator 12-28-10 DMJ

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension DesignFactor
13 3/8" 54.5# K-55	1.9	4.55	12.6
9 5/8" 40# N-80	1.2	2.2	4.7
5 ½" 17# HCP-110	1.3	1.8	1.8

DEC 14 2010

4. Cement Program:

13 3/8" Surface

Lead: 720 sacks (35:65) 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: 1.96 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: 1250 sacks (50:50) 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: 2.24 cf/sack. TOC @ surface.

Tail: 300 sacks (60:40) Poz (Fly Ash):Premium Plus 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: 1.37 cf/sack.

5 1/2" Production

1st Stage

Lead: 430 sacks (50:50) Poz + 0.2% bwoc Sodium Metasilicate + 1.4% bwoc FL-62 + 0.4% bwoc
Yield: 2.01 cf/sack.

Tail
Lead: 1310 sacks (50:50) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 0.4% bwoc R-3 + 103.1% Fresh Water
Yield: 1.28 cf/sack.

DV TOOL at ~6500

2nd Stage

Lead: 235 sacks Class C Cement + 0.125 lbs/sack Cello Flake + 3
6% bwoc Bentonite + 0.4% bwoc FL-52A + 99.3% Fresh Water
Yield: 2.88 cf/sk

Tail: 100 sacks (60:40) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.15%
Yield: 1.34 cf/sk

TOC for All Strings:

Surface:	0'
Intermediate:	0'
Production:	4,500'

See COA

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 blow out prevention system 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. Both BOP systems will be rated at 5000psi. As shown in the attachment, the Surface Casing BOP will be a 3000 psi Hydril annular. It will be tested as a 2000 psi Hydril annular. Prior to drilling out the 9 5/8" intermediate shoe, the ram stack will be nippled up with 4.5" pipe rams installed and will be used in the BOP. **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.**

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** See COA

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – ~~1280'~~ 1420	8.4-9.0	32-34	NC	Fresh Water
1420 ~~1280'~~ – 5150'	10.0	28-30	NC	Brine
5150'–13300'	8.8-9.3	28-40	NC	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. A Kelly cock will be in the drill string at all times.
   b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
   c. 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
   a. Drill stem tests will be based on geological sample shows.
   b. 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.
   c. The open hole electrical logging program will be:
      i. Total Depth to Intermediate Casing — Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
      ii. Total Depth to Surface — Compensated Neutron with Gamma Ray
      iii. No coring program is planned
      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.

9. Plans for Surface Reclamation Include Both Final & Interim:

a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and used for other drilling locations, repair existing roads, repair existing locations, etc. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography. We will use a closed loop system.
b. The location and road will be rehabilitated as recommended by the BLM.
c. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.
d. All disturbed areas not needed for active support of production operations will undergo interim reclamation. The portions of the cleared well site not needed for operational and safety purposes will be recontoured to a final or intermediate contour that blends with the surrounding topography as much as possible. Topsoil will be respread over areas not needed for all-weather operations.

10. Surface Ownership

a. The surface is owned by a private surface owner. Devon has settled surface access and has an agreement with the owner. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.
b. The proposed road routes and the surface location will be restored as directed by the BLM.

11. Other Information:

a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebush, yucca and miscellaneous weeds. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
b. There is no permanent or live water in the general proximity of the location.
c. There are no dwellings within 1 miles of location.
d. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

13. Bond Coverage:

Bond Coverage is Nationwide; Bond # is CO-1104

devon

CUDD
DRILLING & MEASUREMENT SERVICES

Project: Lea Co., New Mexico (Nad 83)
Site: Thistle Unit #18H
Well: Thistle Unit #18H
Wellbore: Lateral #1
Design: Design #3

SECTION DETAILS

Sec	MD	Inc	Azi	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	8457.15	0.00	0.00	8457.15	0.00	0.00	0.00	0.00	0.00	
3	9203.07	89.51	168.00	8934.60	-463.04	98.39	12.00	168.00	471.19	
4	13810.27	89.51	168.00	8974.00	-4969.46	1055.93	0.00	0.00	5056.86	PBHL - TD (TU#18H)

ANNOTATIONS

TVD	MD	Annotation
8361.68	8361.68	KOP - Build 12.0°/100'
8935.06	9256.38	EOC - Hold I:89.51° @ A:168.00°

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - TD (TU#18H)	8974.00	-4969.46	1055.93	462368.76	774876.24	32° 16' 7.919 N	103° 34' 39.899 W	Point

WELL DETAILS: Thistle Unit #18H

Ground Level:
3686.00
WELL @ 3702.00ft (Original Well Elev)

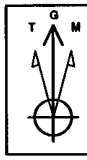
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	467338.22	773820.31	32° 16' 57.166 N	103° 34' 51.791 W	

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

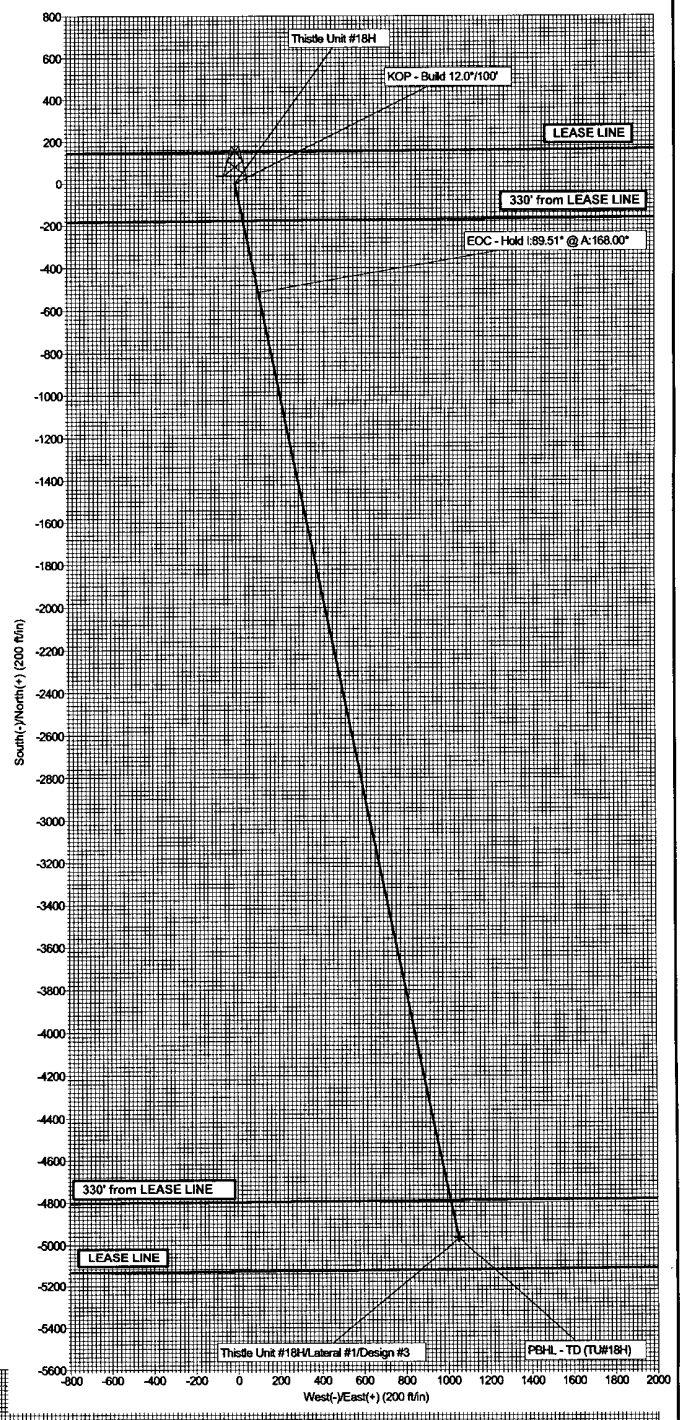
Plan: Design #3 (Thistle Unit #18H/Lateral #1)

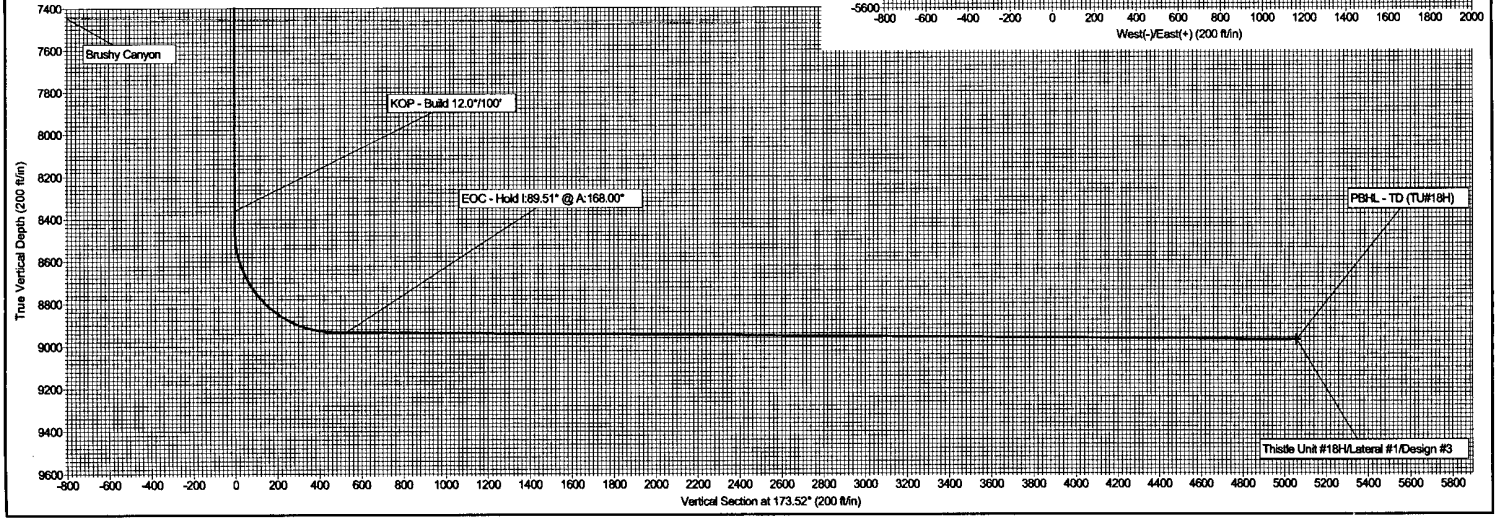
Created By: Mike Starkey Date: 15:30, December 28 2010
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____



Azimuths to Grid North
True North: -0.40°
Magnetic North: 7.27°

Magnetic Field
Strength: 48753.2snT
Dip Angle: 60.28°
Date: 09/30/2010
Model: IGRF200510





devon

Devon Energy

Lea Co., New Mexico (Nad 83)
Thistle Unit #18H
Thistle Unit #18H

Lateral #1

Plan: Design #3

Standard Survey Report

28 December, 2010

CUDD
DRILLING & MEASUREMENT
SERVICES

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Thistle Unit #18H
Project:	Lea Co., New Mexico (Nad 83)	**TVD Reference:**	WELL @ 3702.00ft (Original Well Elev)
Site:	Thistle Unit #18H	**MD Reference:**	WELL @ 3702.00ft (Original Well Elev)
Well:	Thistle Unit #18H	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #3	**Database:**	EDM 2003.21 Single User Db

Project Lea Co., New Mexico (Nad 83)

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

Site Thistle Unit #18H, Sec 28, T-23S, R-33E

Site Position:		**Northing:**	467,338.22 ft	**Latitude:**	32° 16' 57.166 N
From:	Map	**Easting:**	773,820.31 ft	**Longitude:**	103° 34' 51.791 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.40 °

Well Thistle Unit #18H

Well Position	**+N/-S**	0.00 ft	**Northing:**	467,338.22 ft	**Latitude:**	32° 16' 57.166 N
	+E/-W	0.00 ft	**Easting:**	773,820.31 ft	**Longitude:**	103° 34' 51.791 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	3,702.00 ft	**Ground Level:**	3,686.00 ft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	09/30/10	7.67	60.28	48,753

Design Design #3

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	173.52

Survey Tool Program **Date** 12/28/10

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,200.00	Design #3 (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s
8,200.00	13,809.47	Design #3 (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
1,305.00	0.00	0.00	1,305.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,358.00	0.00	0.00	1,358.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt									
2,158.00	0.00	0.00	2,158.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									
5,167.00	0.00	0.00	5,167.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
6,125.00	0.00	0.00	6,125.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Thistle Unit #18H
Project:	Lea Co., New Mexico (Nad 83)	**TVD Reference:**	WELL @ 3702.00ft (Original Well Elev)
Site:	Thistle Unit #18H	**MD Reference:**	WELL @ 3702.00ft (Original Well Elev)
Well:	Thistle Unit #18H	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #3	**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)
7,455.00	0.00	0.00	7,455.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
8,361.68	0.00	0.00	8,361.68	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 12.0°/100'									
8,457.15	0.00	0.00	8,457.15	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	5.14	168.00	8,499.94	-1.88	0.40	1.91	12.00	12.00	0.00
8,600.00	17.14	168.00	8,597.88	-20.75	4.41	21.11	12.00	12.00	0.00
8,700.00	29.14	168.00	8,689.66	-59.12	12.56	60.16	12.00	12.00	0.00
8,800.00	41.14	168.00	8,771.29	-115.32	24.50	117.35	12.00	12.00	0.00
8,900.00	53.14	168.00	8,839.18	-186.89	39.71	190.18	12.00	12.00	0.00
9,000.00	65.14	168.00	8,890.38	-270.71	57.52	275.47	12.00	12.00	0.00
9,100.00	77.14	168.00	8,922.64	-363.10	77.15	369.49	12.00	12.00	0.00
9,200.00	89.14	168.00	8,934.56	-460.04	97.75	468.13	12.00	12.00	0.00
9,203.07	89.51	168.00	8,934.60	-463.04	98.39	471.19	12.00	12.00	0.00
9,256.38	89.51	168.00	8,935.06	-515.19	109.47	524.25	0.00	0.00	0.00
EOC - Hold I:89.51° @ A:168.00°									
9,300.00	89.51	168.00	8,935.43	-557.86	118.54	567.67	0.00	0.00	0.00
9,400.00	89.51	168.00	8,936.28	-655.67	139.32	667.20	0.00	0.00	0.00
9,500.00	89.51	168.00	8,937.14	-753.48	160.10	766.73	0.00	0.00	0.00
9,600.00	89.51	168.00	8,937.99	-851.29	180.89	866.26	0.00	0.00	0.00
9,700.00	89.51	168.00	8,938.85	-949.11	201.67	965.80	0.00	0.00	0.00
9,800.00	89.51	168.00	8,939.70	-1,046.92	222.45	1,065.33	0.00	0.00	0.00
9,900.00	89.51	168.00	8,940.56	-1,144.73	243.24	1,164.86	0.00	0.00	0.00
10,000.00	89.51	168.00	8,941.41	-1,242.54	264.02	1,264.40	0.00	0.00	0.00
10,100.00	89.51	168.00	8,942.27	-1,340.36	284.80	1,363.93	0.00	0.00	0.00
10,200.00	89.51	168.00	8,943.12	-1,438.17	305.59	1,463.46	0.00	0.00	0.00
10,300.00	89.51	168.00	8,943.98	-1,535.98	326.37	1,562.99	0.00	0.00	0.00
10,400.00	89.51	168.00	8,944.84	-1,633.79	347.16	1,662.53	0.00	0.00	0.00
10,500.00	89.51	168.00	8,945.69	-1,731.61	367.94	1,762.06	0.00	0.00	0.00
10,600.00	89.51	168.00	8,946.55	-1,829.42	388.72	1,861.59	0.00	0.00	0.00
10,700.00	89.51	168.00	8,947.40	-1,927.23	409.51	1,961.12	0.00	0.00	0.00
10,800.00	89.51	168.00	8,948.26	-2,025.04	430.29	2,060.66	0.00	0.00	0.00
10,900.00	89.51	168.00	8,949.11	-2,122.86	451.07	2,160.19	0.00	0.00	0.00
11,000.00	89.51	168.00	8,949.97	-2,220.67	471.86	2,259.72	0.00	0.00	0.00
11,100.00	89.51	168.00	8,950.82	-2,318.48	492.64	2,359.26	0.00	0.00	0.00
11,200.00	89.51	168.00	8,951.68	-2,416.30	513.43	2,458.79	0.00	0.00	0.00
11,300.00	89.51	168.00	8,952.53	-2,514.11	534.21	2,558.32	0.00	0.00	0.00
11,400.00	89.51	168.00	8,953.39	-2,611.92	554.99	2,657.85	0.00	0.00	0.00
11,500.00	89.51	168.00	8,954.24	-2,709.73	575.78	2,757.39	0.00	0.00	0.00
11,600.00	89.51	168.00	8,955.10	-2,807.55	596.56	2,856.92	0.00	0.00	0.00
11,700.00	89.51	168.00	8,955.95	-2,905.36	617.34	2,956.45	0.00	0.00	0.00
11,800.00	89.51	168.00	8,956.81	-3,003.17	638.13	3,055.98	0.00	0.00	0.00
11,900.00	89.51	168.00	8,957.66	-3,100.98	658.91	3,155.52	0.00	0.00	0.00
12,000.00	89.51	168.00	8,958.52	-3,198.80	679.69	3,255.05	0.00	0.00	0.00
12,100.00	89.51	168.00	8,959.37	-3,296.61	700.48	3,354.58	0.00	0.00	0.00
12,200.00	89.51	168.00	8,960.23	-3,394.42	721.26	3,454.12	0.00	0.00	0.00
12,300.00	89.51	168.00	8,961.08	-3,492.23	742.05	3,553.65	0.00	0.00	0.00
12,400.00	89.51	168.00	8,961.94	-3,590.05	762.83	3,653.18	0.00	0.00	0.00
12,500.00	89.51	168.00	8,962.79	-3,687.86	783.61	3,752.71	0.00	0.00	0.00
12,600.00	89.51	168.00	8,963.65	-3,785.67	804.40	3,852.25	0.00	0.00	0.00
12,700.00	89.51	168.00	8,964.51	-3,883.48	825.18	3,951.78	0.00	0.00	0.00
12,800.00	89.51	168.00	8,965.36	-3,981.30	845.96	4,051.31	0.00	0.00	0.00
12,900.00	89.51	168.00	8,966.22	-4,079.11	866.75	4,150.84	0.00	0.00	0.00
13,000.00	89.51	168.00	8,967.07	-4,176.92	887.53	4,250.38	0.00	0.00	0.00

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Thistle Unit #18H
Project:	Lea Co., New Mexico (Nad 83)	**TVD Reference:**	WELL @ 3702.00ft (Original Well Elev)
Site:	Thistle Unit #18H	**MD Reference:**	WELL @ 3702.00ft (Original Well Elev)
Well:	Thistle Unit #18H	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #3	**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)
13,100.00	89.51	168.00	8,967.93	-4,274.73	908.31	4,349.91	0.00	0.00	0.00
13,200.00	89.51	168.00	8,968.78	-4,372.55	929.10	4,449.44	0.00	0.00	0.00
13,300.00	89.51	168.00	8,969.64	-4,470.36	949.88	4,548.98	0.00	0.00	0.00
13,400.00	89.51	168.00	8,970.49	-4,568.17	970.67	4,648.51	0.00	0.00	0.00
13,500.00	89.51	168.00	8,971.35	-4,665.99	991.45	4,748.04	0.00	0.00	0.00
13,600.00	89.51	168.00	8,972.20	-4,763.80	1,012.23	4,847.57	0.00	0.00	0.00
13,700.00	89.51	168.00	8,973.06	-4,861.61	1,033.02	4,947.11	0.00	0.00	0.00
13,800.00	89.51	168.00	8,973.91	-4,959.42	1,053.80	5,046.64	0.00	0.00	0.00
13,810.27	89.51	168.00	8,974.00	-4,969.46	1,055.93	5,056.86	0.00	0.00	0.00
PBHL - TD (TU#18H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL - TD (TU#18H) - plan hits target center - Point	0.00	0.00	8,974.00	-4,969.46	1,055.93	462,368.76	774,876.24	32° 16' 7.919 N	103° 34' 39.899 W

Formations

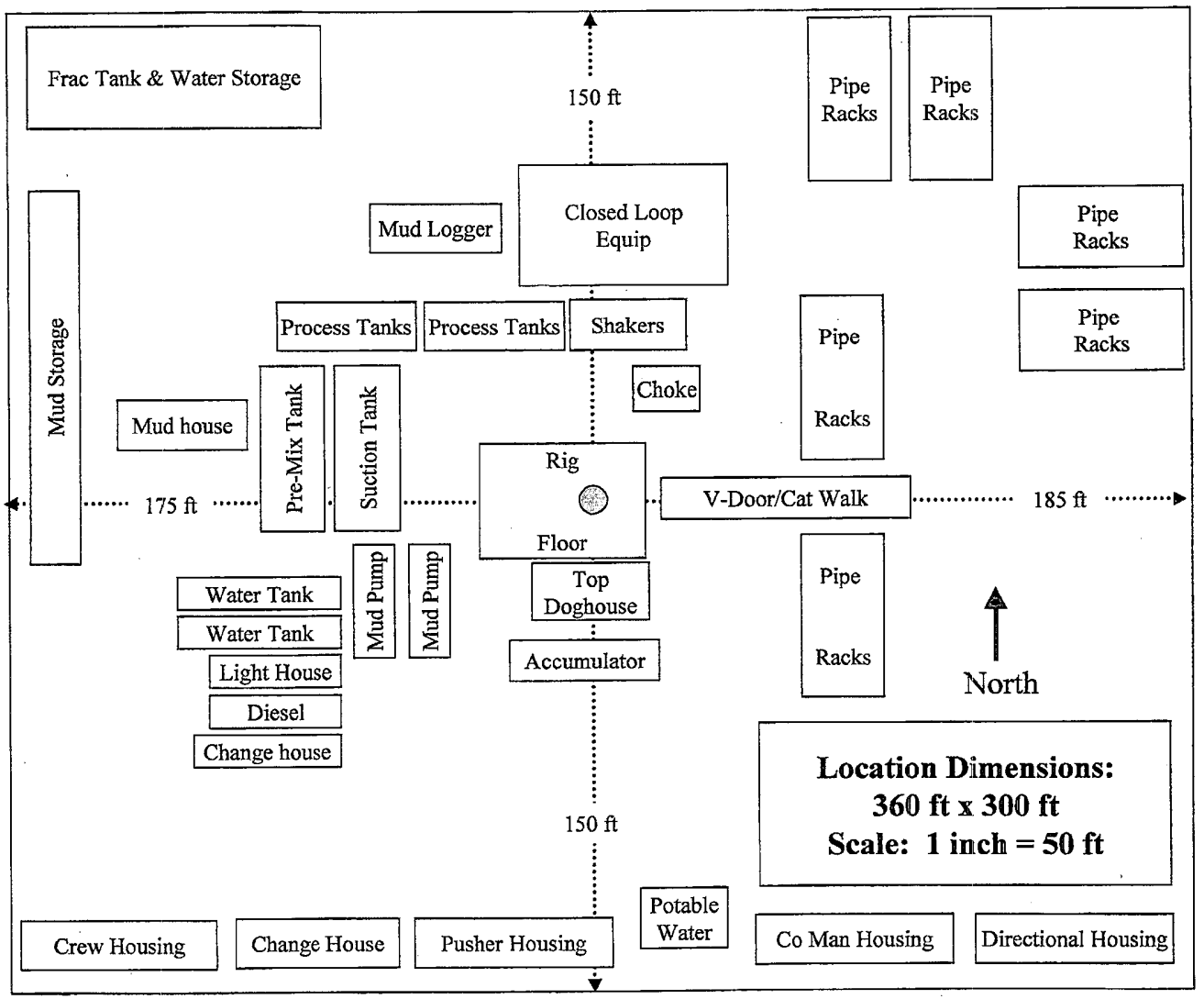
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,305.00	1,305.00	Rustler		0.53	173.00
1,358.00	1,358.00	Top of Salt		0.53	173.00
2,158.00	2,158.00	Base of Salt		0.53	173.00
5,167.00	5,167.00	Delaware		0.53	173.00
6,125.00	6,125.00	Cherry Canyon		0.53	173.00
7,455.00	7,455.00	Brushy Canyon		0.53	173.00

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
8,361.68	8,361.68	0.00	0.00	KOP - Build 12.0°/100'
9,256.38	8,935.06	-515.19	109.47	EOC - Hold I:89.51° @ A:168.00°

Checked By: _____ Approved By: _____ Date: _____

Conventional Rig Location Layout



devon

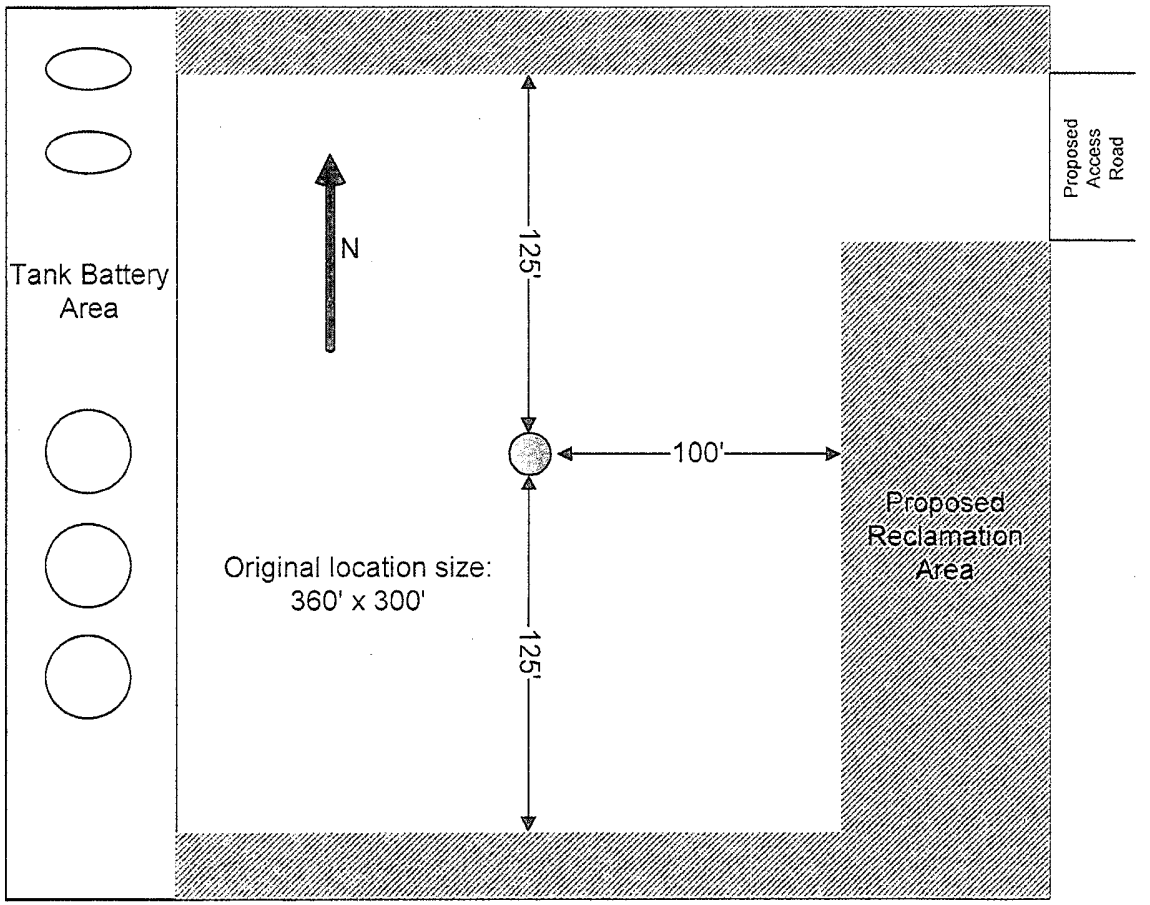
Proposed Interim Site Reclamation

Devon Energy Production Co.

Thistle Unit 18H
150 'FNL & 1,470' FWL
Sec. 28 - T23S - R33E
Lea County, NM

Proposed Reclamation Area

1" : 50'



Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Thistle Unit 18H
Surface Location: 150' FNL & 1470' FWL, Unit C, Sec 28 T23S R33E, Lea, NM
Bottom Location: 330' FSL & 1980' FWL, Unit N, Sec 28 T23S R33E, 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.

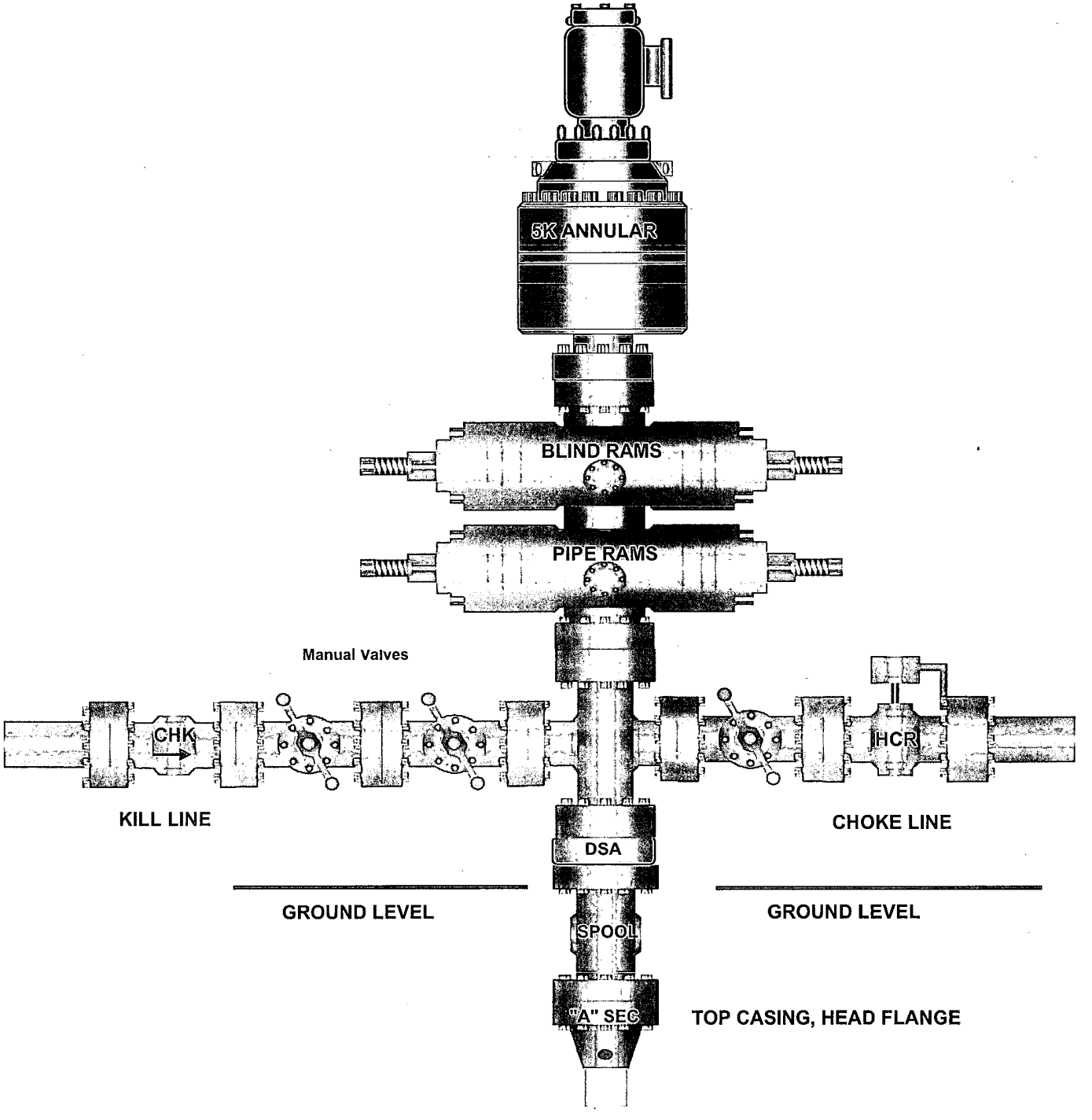
8. Will maintain a kelly cock attached to the kelly.

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



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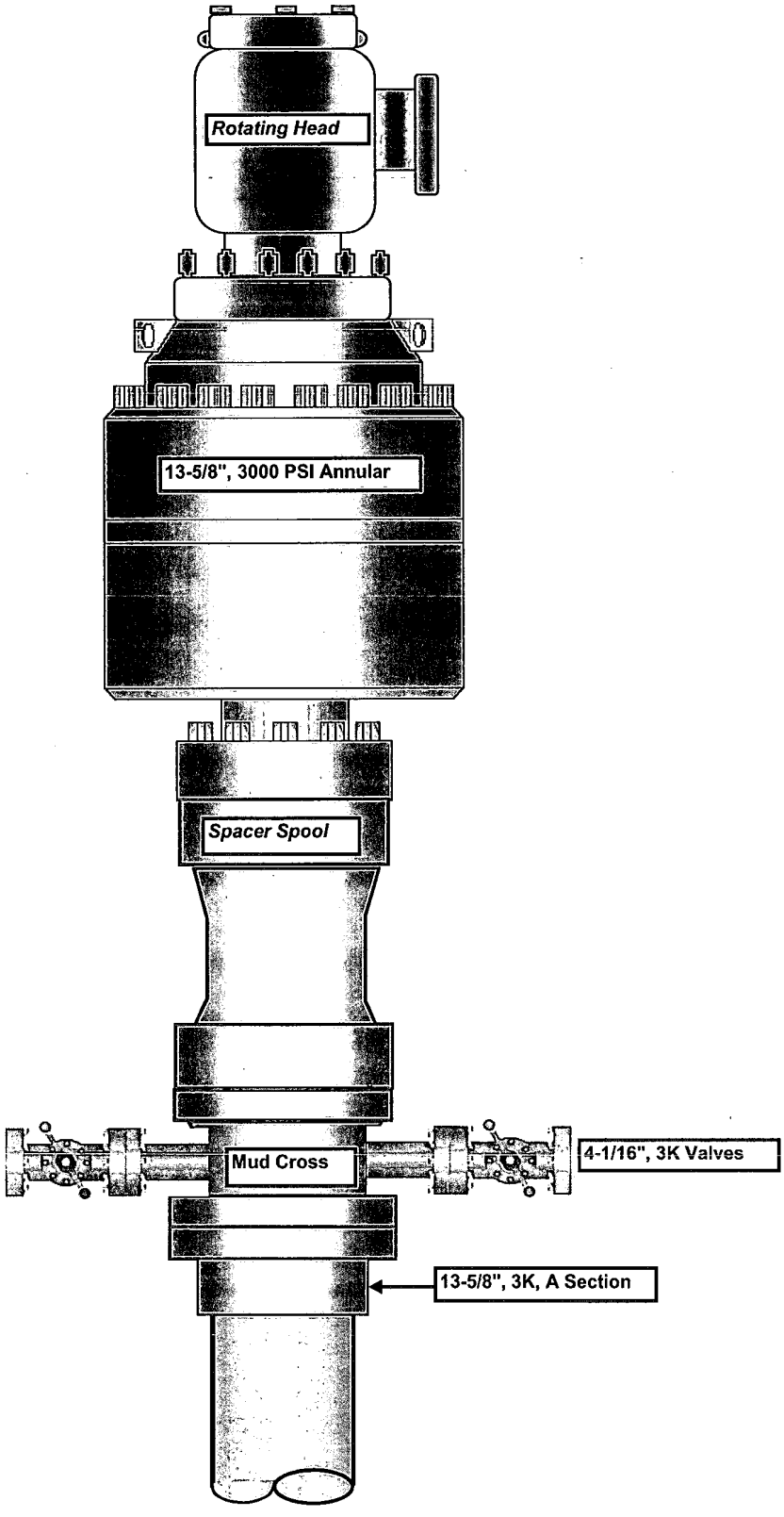
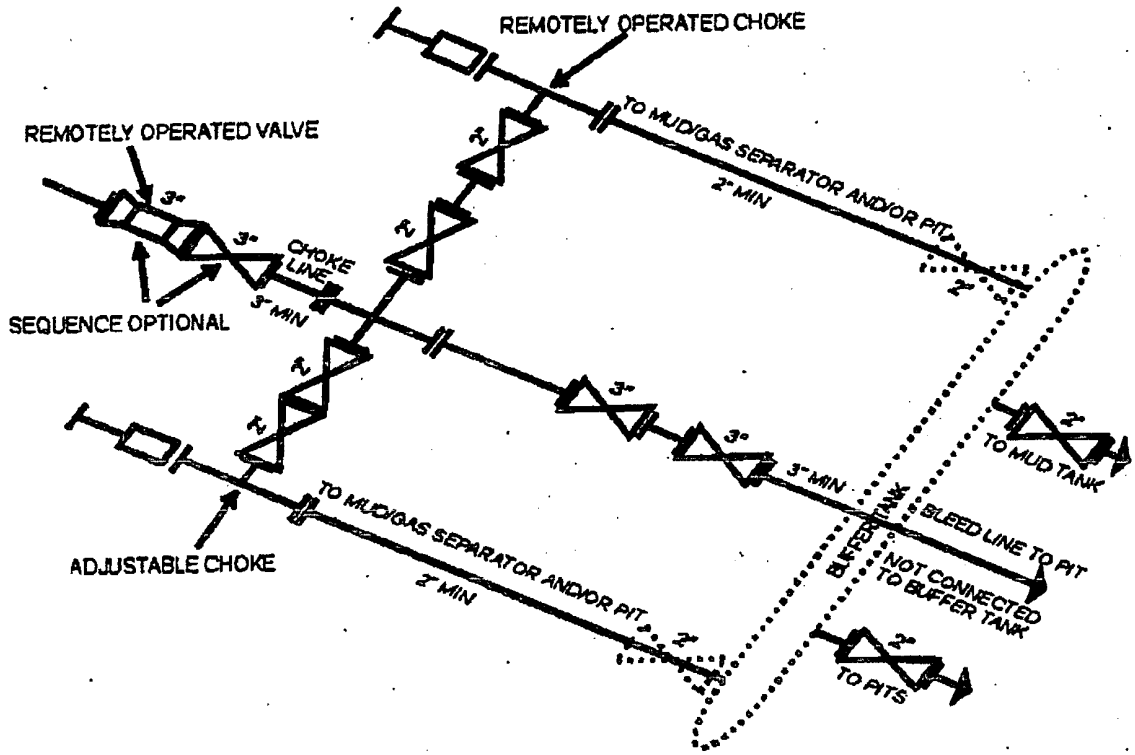
13-5/8" 3K Annular





5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

Operator should provide an accurate manifold schematic & not the generic schematic from Onshore Order #2. BLM inspectors are expecting what is approved and the generic schematic is not adequate.