

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, 2007

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM LC 069464-A
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Co., LP <6137>		7. If Unit or CA Agreement, Name and No.
3a. Address 20 North Broadway OKC, OK 73102		8. Lease Name and Well No. (38355) Arcturus 18 Federal 2H
3b. Phone No. (include area code) (405)-552-7802		9. API Well No. 30-015-38390
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SENE 1650' FNL & 340' FEL Lot H At proposed prod. zone SENW 1650' FNL & 340' FWL Lot F		10. Field and Pool, or Exploratory Hackberry; Bone Spring, NW (97020)
11. Sec., T. R. M. or Blk. and Survey or Area Sec 18 T19S-R31E		12. County or Parish Eddy
13. State NM		14. Distance in miles and direction from nearest town or post office* Approximately 12 miles southwest of Loco Hills, NM.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 340'	16. No. of acres in lease 760 acres	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. SL: 865' BHL: 500'	19. Proposed Depth TVD 8,855' MD 13,140'	20. BLM/BIA Bond No. on file CO-1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3428.4' GL	22. Approximate date work will start* 10/15/2010	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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature	Name (Printed/Typed) Stephanie A. Ysasaga	Date 08/05/2010
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Title
Sr. Staff Engineering Technician

Approved by (Signature) /s/ Linda S.C. Rundell	Name (Printed/Typed) Linda S.C. Rundell	Date DEC 6 2010
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Title
STATE DIRECTOR

Office

NM STATE OFFICE

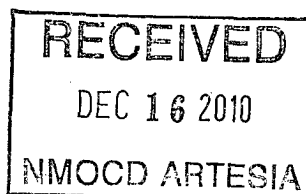
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

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)

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Capitan Controlled Water Basin

DRILLING PROGRAM

Devon Energy Production Company, LP

Arcturus 18 Federal 2H

Surface Location: 1650' FNL & 340' FEL, Unit H, Sec 18 T19S R31E, Eddy, NM

Bottom hole Location: 1650' FNL & 340' FWL, Unit F, Sec 18 T19S R31E, Eddy, NM

1. Geologic Name of Surface Formation

a. Permian

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

a. Rustler	455'	Barren
b. Salado	575'	Barren
c. Tansil Dolomite	1918'	Barren
d. Yates	2075'	Barren
e. Seven Rivers	2365'	Oil
f. Queen	3190'	Oil
g. San Andres	3790'	Oil
h. Delaware	4900'	Oil
i. Bone Springs	6490'	Oil
j. 1 st Bone Spring Ss	7825'	Oil
k. 2 nd Bone Spring Lime	8140'	Oil
l. 2 nd Bone Spring Ss	8675'	Oil
m. 2 nd Bone Spring Middle Ss	8840'	Oil
n. 2 nd Bone Spring Middle Ss Base	8920'	Oil
o. 3 rd Bone Spring Lime	9090'	Oil
p. PTD (pilot hole)	9240'	
q. Total Depth	TVD 8855' MD 13140'	

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 500' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 3150' 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:

See COA

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0'-500'	13 3/8"	0'-500'	48#	STC	H-40
12 1/4"	500'-3150'	9 5/8"	0'-3150'	36#	LTC	J-55
8 3/4"	3150'-8200'	5 1/2"	0'-8200'	17#	LTC	P-110HC
8 3/4"	8200'-13140'	5 1/2"	8200'-13140'	17#	BTC	P-110HC

Note: An 8-3/4" pilot hole will be drilled to 9,240 ft, and plugged back to KOP. The cement plug details are included below in the "Cementing Program".

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u>	<u>Burst Design</u>	<u>Tension Design</u>
	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
13 3/8"	2.99	6.72	12.20
9 5/8"	1.23	2.15	2.74
5 1/2" LTC	1.64	2.02	1.55
5 1/2" BTC	1.80	2.25	5.20

4. Cement Program:

a. 13 3/8" Surface

Lead: 250 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: 1.75 cf/sk

Tail: 250 Tail: 250 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. 9 5/8" Intermediate

Lead: 750 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water, 12.5 ppg. Yield: 1.96 cf/sk.

Tail: 300 sacks Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 52.7% Water, 14.8 ppg. Yield: 1.34 cf/sk. **TOC @ surface.**

c. 5 1/2" Production

1st Stage

Lead: 900 sacks (35:65) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% Fresh Water, 12.5 ppg. Yield: 2.00 cf/sk

Tail: 1,300 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg. Yield: 1.28 cf/sk

DV TOOL at ~4,500 ft

2nd Stage

Lead: 215 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg. Yield: 2.89 cf/sk

Tail: 150 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8

ppg. Yield: 1.37cf/sk. TOC @ 2,650'.

8-3/4" Pilot Hole Plug 650 sxs Class H, 18.0 ppg, 0.89 cf/sk
Top of Plug 8,297' (KOP)
Bottom of Plug 9,240' (Pilot Hole TD)

TOC for All Strings:

Surface: 0'
Intermediate: 0'
Production: 2,650'

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 intermediate hole will consist of a 13-5/8" 5M Double 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 surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 5M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 5M system prior to drilling out the intermediate casing shoe.

The pipe rams 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 annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

6. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 550' 475'	8.4-9.0	30-34	NC	Fresh Water
475' 550' - 3150'	9.8-10.0	28-32	NC	Brine
3150' - 13140'	8.6-9.0	28-32	NC-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 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:

- Drill stem tests will be based on geological sample shows.

See COA

- 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:
- See COA
- 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. 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 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3600 psi and Estimated BHT 145°. 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.



Weatherford®

Drilling Services

Proposal



devon

ARCTURUS 18 FED #2H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

AUGUST 11, 2010

Weatherford International, Ltd.

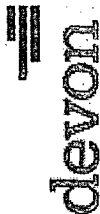
P.O. Box 61028

Midland, TX 79711 USA

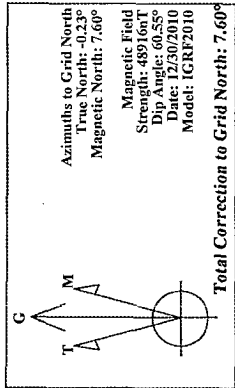
+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com



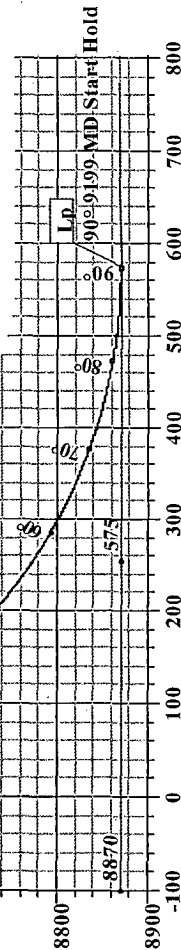
ARCTURUS 18 FED 2H
EDDY CO., NEW MEXICO



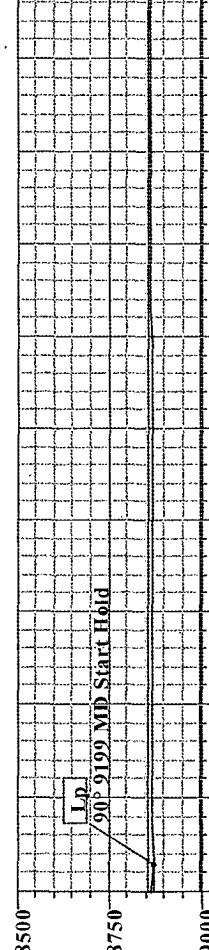
KB ELEV: 3453
GL ELEV: 3428

8297
0° 8297 MD Start Build 10.00

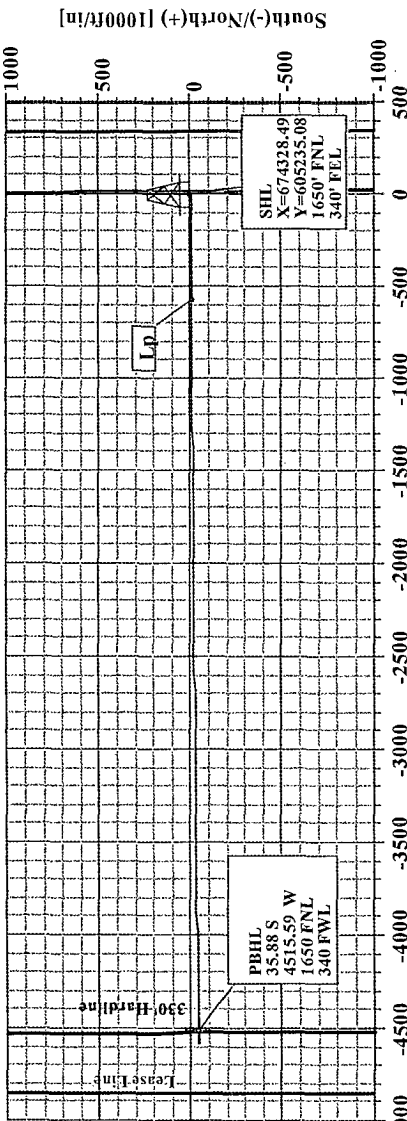
True Vertical Depth [200ft/in]



Vertical Section at 269.54° [200ft/in]



True Vertical Depth [500ft/in]



West(-)/East(+) [1000ft/in]

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	269.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8297.18	0.00	269.54	8297.18	0.00	0.00	0.00	269.54	0.00	0.00
3	9199.15	90.22	269.54	8870.00	-4.57	-574.99	10.00	269.54	575.00	0.00
4	13139.91	90.22	269.54	8855.00	-35.88	-4515.59	0.00	0.00	4515.73	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Arcturus 18 Fed 2H	0.00	0.00	605235.08	674328.49	32°39'47.124N	103°54'04.250W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	Point
Pbhl	8855.00	-35.88	-4515.59	605199.20	669812.90	Point	

FIELD DETAILS

Eddy Co., NM (NAD 83)
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Arcturus 18 Fed 2H
Site Centre Northing: 605235.08
Easting: 674328.49
Ground Level: 3428.00
Positional Uncertainty: 0.00
Convergence: 0.23

Vertical Section at 269.54° [500ft/in]

Plan: Plan #1 (Arcturus 18 Fed 2H/1)

Created By: Russell W. Joyner

Date: 8/11/2010



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Devon Energy Date: 8/11/2010 Time: 14:32:13 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Arcturus 18 Fed 2H, Grid North
Site: Arcturus 18 Fed 2H Vertical (TVD) Reference: SITE 3453.0
Well: Arcturus 18 Fed 2H Section (VS) Reference: Well (0.00N,0.00E,269.54Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 8/11/2010
Principal: Yes Version: 1
Tied-to: From Surface

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Arcturus 18 Fed 2H

Site Position: Northing: 605235.08 ft Latitude: 32 39 47.124 N
From: Map Easting: 674328.49 ft Longitude: 103 54 4.250 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3428.00 ft Grid Convergence: 0.23 deg

Well: Arcturus 18 Fed 2H

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 605235.08 ft Latitude: 32 39 47.124 N
+E/-W 0.00 ft Easting: 674328.49 ft Longitude: 103 54 4.250 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Current Datum: SITE Height 3453.00 ft Drilled From: Surface
Magnetic Data: 12/30/2010 Tie-on Depth: 0.00 ft
Field Strength: 48916 nT Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD) +N/-S Declination: 7.83 deg
ft ft +E/-W Mag Dip Angle: 60.55 deg
deg
8855.00 0.00 0.00 269.54

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	269.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8297.18	0.00	269.54	8297.18	0.00	0.00	0.00	0.00	0.00	269.54	
9199.15	90.22	269.54	8870.00	-4.57	-574.99	10.00	10.00	0.00	269.54	
13139.91	90.22	269.54	8855.00	-35.88	-4515.59	0.00	0.00	0.00	0.00	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8200.00	0.00	269.54	8200.00	0.00	0.00	0.00	0.00	605235.08	674328.49	
8297.18	0.00	269.54	8297.18	0.00	0.00	0.00	0.00	605235.08	674328.49	Kop
8300.00	0.28	269.54	8300.00	0.00	-0.01	0.01	10.00	605235.08	674328.48	
8400.00	10.28	269.54	8399.45	-0.07	-9.20	9.20	10.00	605235.01	674319.29	
8500.00	20.29	269.54	8495.79	-0.28	-35.53	35.53	10.00	605234.80	674292.96	
8600.00	30.29	269.54	8586.09	-0.62	-78.19	78.20	10.00	605234.46	674250.30	
8700.00	40.29	269.54	8667.61	-1.08	-135.89	135.89	10.00	605234.00	674192.60	
8800.00	50.29	269.54	8737.87	-1.64	-206.87	206.87	10.00	605233.44	674121.62	
8900.00	60.30	269.54	8794.73	-2.30	-288.97	288.98	10.00	605232.78	674039.52	
9000.00	70.30	269.54	8836.47	-3.02	-379.70	379.71	10.00	605232.06	673948.79	
9100.00	80.30	269.54	8861.82	-3.78	-476.30	476.32	10.00	605231.30	673852.19	
9199.15	90.22	269.54	8870.00	-4.57	-574.99	575.00	10.00	605230.51	673753.50	Lp
9200.00	90.22	269.54	8870.00	-4.58	-575.84	575.85	0.00	605230.50	673752.65	
9300.00	90.22	269.54	8869.61	-5.37	-675.83	675.85	0.00	605229.71	673652.66	
9400.00	90.22	269.54	8869.23	-6.16	-775.83	775.85	0.00	605228.92	673552.66	
9500.00	90.22	269.54	8868.85	-6.96	-875.82	875.85	0.00	605228.12	673452.67	
9600.00	90.22	269.54	8868.47	-7.75	-975.82	975.85	0.00	605227.33	673352.67	



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Arcturus 18 Fed 2H
Well: Arcturus 18 Fed 2H
Wellpath: 1

Date: 8/11/2010 Time: 14:32:13 Page: 2
Co-ordinate(NE) Reference: Well: Arcturus 18 Fed 2H, Grid North
Vertical (TVD) Reference: SITE 3453.0
Section (VS) Reference: Well (0.00N,0.00E,269.54Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9700.00	90.22	269.54	8868.09	-8.55	-1075.82	1075.85	0.00	605226.53	673252.67	
9800.00	90.22	269.54	8867.71	-9.34	-1175.81	1175.85	0.00	605225.74	673152.68	
9900.00	90.22	269.54	8867.33	-10.14	-1275.81	1275.85	0.00	605224.94	673052.68	
10000.00	90.22	269.54	8866.95	-10.93	-1375.81	1375.85	0.00	605224.15	672952.68	
10100.00	90.22	269.54	8866.57	-11.73	-1475.80	1475.85	0.00	605223.35	672852.69	
10200.00	90.22	269.54	8866.19	-12.52	-1575.80	1575.85	0.00	605222.56	672752.69	
10300.00	90.22	269.54	8865.81	-13.32	-1675.79	1675.85	0.00	605221.76	672652.70	
10400.00	90.22	269.54	8865.43	-14.11	-1775.79	1775.85	0.00	605220.97	672552.70	
10500.00	90.22	269.54	8865.05	-14.90	-1875.79	1875.85	0.00	605220.18	672452.70	
10600.00	90.22	269.54	8864.67	-15.70	-1975.78	1975.84	0.00	605219.38	672352.71	
10700.00	90.22	269.54	8864.29	-16.49	-2075.78	2075.84	0.00	605218.59	672252.71	
10800.00	90.22	269.54	8863.91	-17.29	-2175.77	2175.84	0.00	605217.79	672152.72	
10900.00	90.22	269.54	8863.53	-18.08	-2275.77	2275.84	0.00	605217.00	672052.72	
11000.00	90.22	269.54	8863.14	-18.88	-2375.77	2375.84	0.00	605216.20	671952.72	
11100.00	90.22	269.54	8862.76	-19.67	-2475.76	2475.84	0.00	605215.41	671852.73	
11200.00	90.22	269.54	8862.38	-20.47	-2575.76	2575.84	0.00	605214.61	671752.73	
11300.00	90.22	269.54	8862.00	-21.26	-2675.76	2675.84	0.00	605213.82	671652.73	
11400.00	90.22	269.54	8861.62	-22.06	-2775.75	2775.84	0.00	605213.02	671552.74	
11500.00	90.22	269.54	8861.24	-22.85	-2875.75	2875.84	0.00	605212.23	671452.74	
11600.00	90.22	269.54	8860.86	-23.64	-2975.74	2975.84	0.00	605211.44	671352.75	
11700.00	90.22	269.54	8860.48	-24.44	-3075.74	3075.84	0.00	605210.64	671252.75	
11800.00	90.22	269.54	8860.10	-25.23	-3175.74	3175.84	0.00	605209.85	671152.75	
11900.00	90.22	269.54	8859.72	-26.03	-3275.73	3275.84	0.00	605209.05	671052.76	
12000.00	90.22	269.54	8859.34	-26.82	-3375.73	3375.83	0.00	605208.26	670952.76	
12100.00	90.22	269.54	8858.96	-27.62	-3475.72	3475.83	0.00	605207.46	670852.77	
12200.00	90.22	269.54	8858.58	-28.41	-3575.72	3575.83	0.00	605206.67	670752.77	
12300.00	90.22	269.54	8858.20	-29.21	-3675.72	3675.83	0.00	605205.87	670652.77	
12400.00	90.22	269.54	8857.82	-30.00	-3775.71	3775.83	0.00	605205.08	670552.78	
12500.00	90.22	269.54	8857.44	-30.80	-3875.71	3875.83	0.00	605204.28	670452.78	
12600.00	90.22	269.54	8857.05	-31.59	-3975.70	3975.83	0.00	605203.49	670352.79	
12700.00	90.22	269.54	8856.67	-32.38	-4075.70	4075.83	0.00	605202.70	670252.79	
12800.00	90.22	269.54	8856.29	-33.18	-4175.70	4175.83	0.00	605201.90	670152.79	
12900.00	90.22	269.54	8855.91	-33.97	-4275.69	4275.83	0.00	605201.11	670052.80	
13000.00	90.22	269.54	8855.53	-34.77	-4375.69	4375.83	0.00	605200.31	669952.80	
13100.00	90.22	269.54	8855.15	-35.56	-4475.69	4475.83	0.00	605199.52	669852.80	
13139.91	90.22	269.54	8855.00	-35.88	-4515.59	4515.73	0.00	605199.20	669812.90	Pbhl

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
Pbhl			8855.00	-35.88	-4515.59	605199.20	669812.90	32	39	46.948 N	103	54	57.075 W

Casing Points

MD	TVD	Diameter	Hole Size	Name



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company:	Devon Energy	Date:	8/11/2010	Time:	14:32:13	Page:	3
Field:	Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Well: Arcturus 18 Fed 2H, Grid North				
Site:	Arcturus 18 Fed 2H	Vertical (TVD) Reference:	SITE 3453.0				
Well:	Arcturus 18 Fed 2H	Section (VS) Reference:	Well (0.00N,0.00E,269.54Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature				Db: Sybase

Annotation

MD ft	TVD ft	
8297.18	8297.18	Kop
9199.15	8870.00	Lp
13139.90	8855.00	Pbhl

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

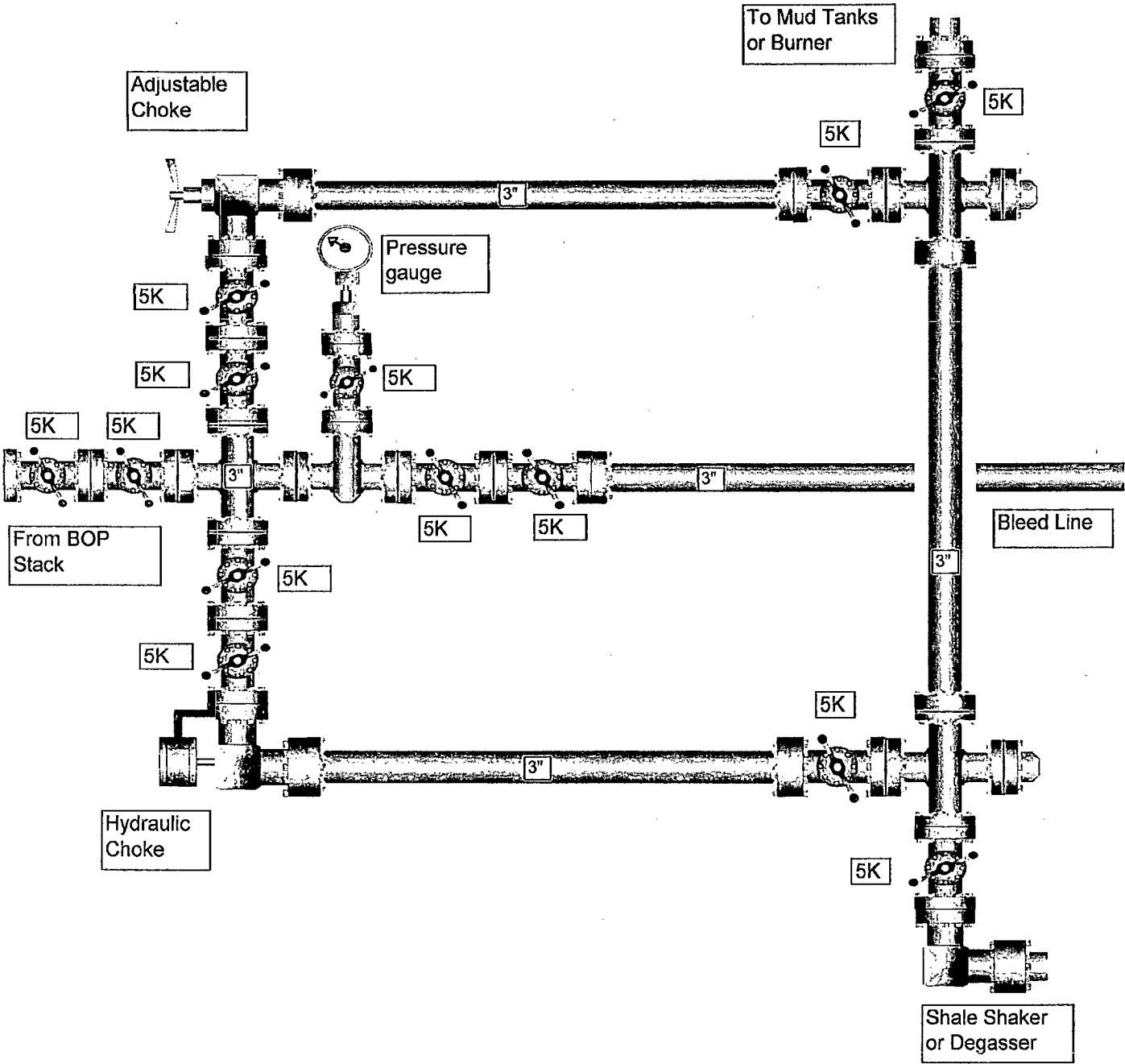
Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP

Arcturus 18 Federal 2H

Surface Location: 1650' FNL & 340' FEL, Unit H, Sec 18 T19S R31E, Eddy, NM
Bottom hole Location: 1650' FNL & 340' FWL, Unit ~~F~~_E, Sec 18 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 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.

5,000 PSI CHOKE MANIFOLD



13-5/8" x 5,000 psi BOP Stack

