

OCD Hobbs
HOBBS OCD

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCT 01 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER

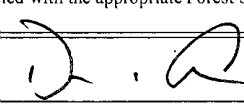
RECEIVED

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. Caswell 23 Federal 2H
2 Name of Operator DEVON ENERGY PRODUCTION COMPANY, L.P.		9. API Well No. 30-025-40800
3a. Address 333 W. SHERIDAN AVE., OKLAHOMA CITY, OKLAHOMA 73102-8260	3b. Phone No. (include area code) 405.552.7848	10 Field and Pool, or Exploratory MALJAMAR WEST; RABDOCK
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1950 FNL & 330 FEL, Unit H At proposed prod. zone 1650 FNL & 330 FWL, Unit E PP: 1650 FNL & 712 FEL		11 Sec., T. R. M. or Blk. and Survey or Area Sec. 23-T17S-R32E
14 Distance in miles and direction from nearest town or post office* APPROX 2.5 MILES SE OF MALJAMAR, NM		12 County or Parish LEA
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) See Attached Map		16 No. of acres in lease 640 Acres
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft See Attached Map		17 Spacing Unit dedicated to this well 160 Acres
19 Proposed Depth 10,409' MD 6,020' TVD		20 BLM/BIA Bond No. on file CO1104; NMB-000801
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 4,037' GL	22 Approximate date work will start*	23. Estimated duration 45 DAYS

24. Attachments To be pad drilled with the Caswell 23 Fed 4H

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. I, 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) DAVID H. COOK	Date 07/10/2012
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Title

REGULATORY SPECIALIST

Approved by (Signature) <i>/s/ Don Peterson</i>	Name (Printed/Typed) <i>/s/ Don Peterson</i>	Date SEP 27 2012
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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

(Continued on page 2)

Roswell Controlled Water Basin

Kz 10/1/12

CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

OCT 02 2012

DRILLING PROGRAM
Devon Energy Production Company, LP

Caswell 23 Federal 2H

Surface Location: 1950 FNL & 330 FEL, Unit H, Sec 23 T17S R32E, Lea, NM

Bottom Hole Location: 1650 FNL & 330 FWL, Unit E, Sec 23 T17S R32E, Lea, NM

1. **Geologic Name of Surface Formation**
 - a. Permian
2. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

Formation	Depth (ft)	Hydrocarbon/Water Bearing Zones
Quaternary	Surface	
Water Sand	70'	Water
Rustler	954'	
Top of Salt	1,160'	
Base of Salt	2,211'	
Yates	2,360'	
7 Rivers	2,689'	
Queen	3,280'	
Grayburg	3,669'	Oil
San Andres	4,072'	Oil
Yeso Group	5,785'	Oil
TD	10,409'	

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 1,000' and circulating cement back to surface. (Fresh water sands) will be protected by setting 9 5/8" casing at 2,250' and circulating cement to surface. The Yeso Group 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.

Casing Program: (All casing is new and API approved)

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 1/2"	0'-1,000'	13 3/8"	0 - 1,000' <i>see COH 1065</i>	48#	STC	H-40
12 1/4"	1,000'-2,250'	9 5/8"	0 - 2,250' <i>see COH 2429</i>	40#	LTC	J-55
8 3/4"	2,250'-5,200'	5 1/2"	0 - 5,200'	17#	LTC	HCP-110
8 3/4"	5,200'-10,409'	5 1/2"	5,200' - 10,409'	17#	BTC	HCP-110

Maximum TVD: 6,020'

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13 3/8"	1.65	3.70	6.71
9 5/8"	1.48	2.27	3.88
5 1/2"	2.83	4.03	2.59
5 1/2"	3.19	4.55	6.55

3. Cement Program:

13 3/8" Surface: **Lead:** 580 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water, 13.5 ppg, **Yield:** 1.68 cf/sk

TOC @ surface

Tail: 340 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg, **Yield:** 1.35 cf/sk

9 5/8" Intermediate:

Lead: 432 sacks (65:35) Class C Cement:Poz (Fly Ash): + 5% bwow Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 6% bwoc Bentonite + 70.9% Fresh Water, 12.5 ppg, **Yield:** 2.04 cf/sk

TOC @ surface

Tail: 211 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Water, 14.8 ppg, **Yield:** 1.33 cf/sk

5 1/2" Production: **Lead:** 400 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% bwoc Bentonite + 0.125 lbs/sack Poly-E-Flake + 0.1% bwoc HR-601 + 74.1% Fresh Water, 11.8 ppg, **Yield:** 2.52 cf/sk

TOC @ 1,750

Tail: 1,471 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg, **Yield:** 1.22 cf/sk

The above cement volumes could be revised pending the caliper measurement from the open hole logs. All cement volumes based on at least 25% excess. See attached cement additive document.

Pressure Control Equipment

The BOP system used to drill the intermediate hole will consist of a 13-5/8" Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2, a 3M system will be installed prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 a 3M system will be installed 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.

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.

Mud Program

Depth	Wt. (ppg)	VIS	Fluid Loss	Type System
0-1,000' 1067	8.4-9.0	30-34	NC	FW
1,000'-2,250' 2625	9.8-10.0	28-32	NC	Brine
2,250'-10,409'	8.6-9.0	28-32	NC-12	FW

NC= no control

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

4. 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.

5. Logging, Coring, and Testing Program:

- 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.

6. 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 2300 psi and Estimated BHT 110°. No H₂S is anticipated to be encountered.

7. 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.

Halliburton Cement Additives

Additive Name	Purpose
Calcium Chloride (CaCl)	Accelerator
Poly-E-Flake	Lost circulation material
Bentonite (gel)	Free water reduction additive
Sodium Chloride (NaCl)	Salt, accelerator, mixing aid
HR-601	Retarder
HR-800	Retarder
Econolite	Free water reduction additive
HALAD-9	Fluid loss reduction additive
HALAD-344	Fluid loss reduction additive
SA-1015	Suspending agent, viscosifier, fluid loss reduction additive
CFR-3	Cement friction reducer, dispersant



Weatherford®

Drilling Services

Proposal



devon

CASWELL 23 FED #2H

LEA COUNTY, NM

WELL FILE: **PLAN 2**

SEPTEMBER 11, 2012

Weatherford International, Ltd.
P.O. Box 61028
Midland, TX 79711 USA
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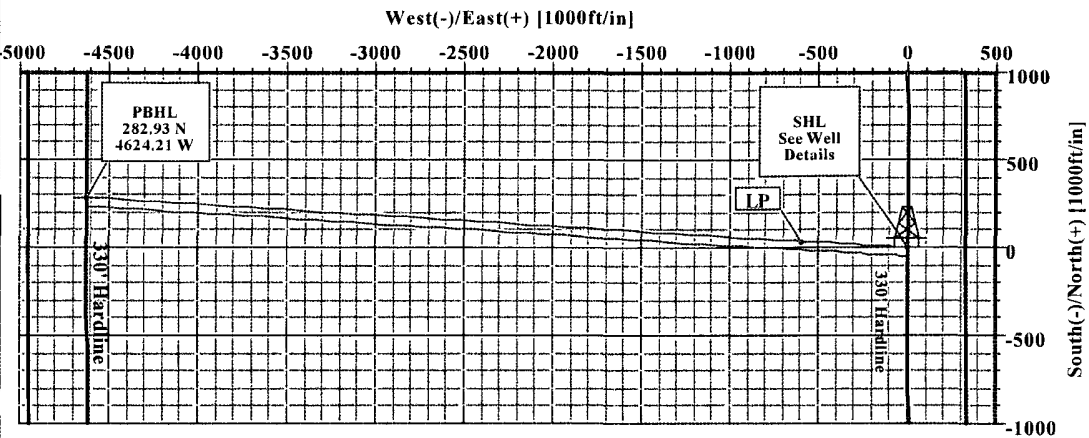
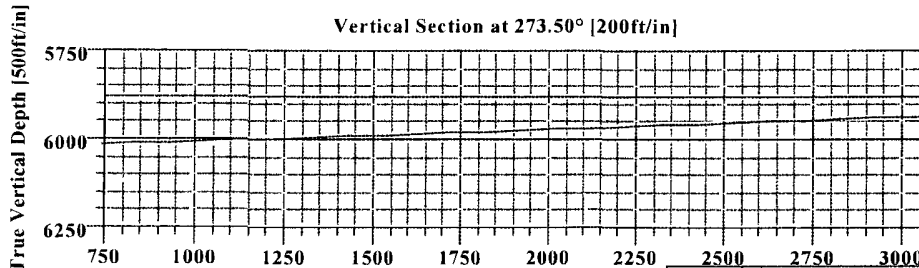
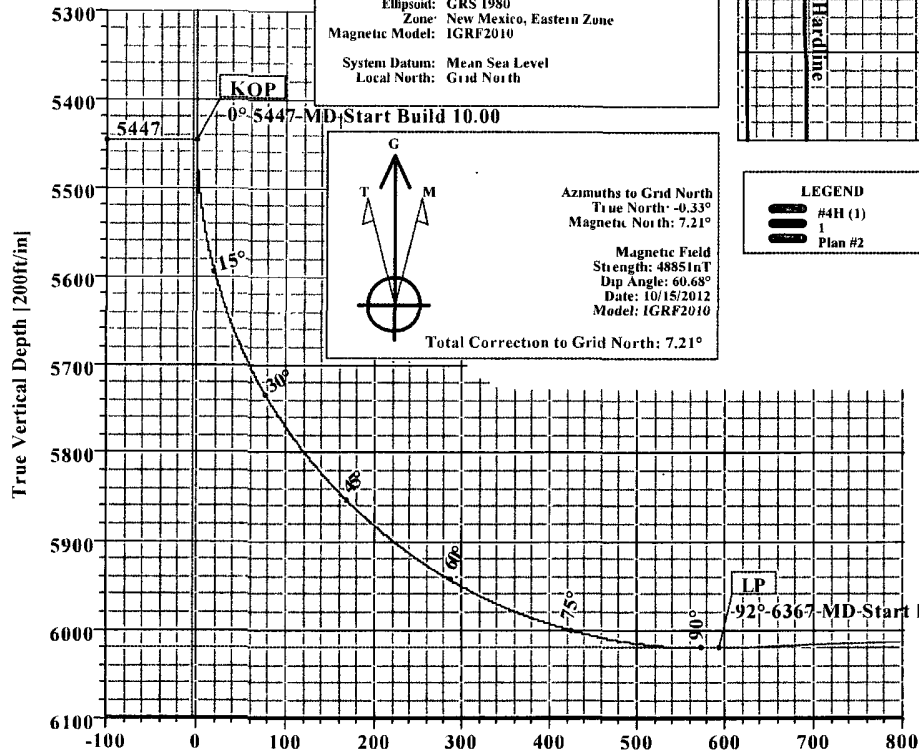
devon

Caswell 23 Fed #2H
Lea County, NM

SITE DETAILS
Caswell 23 Fed #2H
Site Centre Northing: 663287.27
Easting: 726812.78
Ground Level: 4037.00
Positional Uncertainty: 0.00
Convergence: 0.33

FIELD DETAILS
Lea County, New Mexico (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

KB ELEV: 4057
GL ELEV: 4037



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	273.50	0.00	0.00	0.00	0.00	0.00	0.00	
2	5447.39	0.00	273.50	5447.39	0.00	0.00	0.00	0.00	0.00	
3	6367.38	92.00	273.50	6020.00	36.21	-591.84	10.00	273.50	592.94	
4	10409.75	92.00	273.50	5879.00	282.93	-4624.21	0.00	0.00	4632.86	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#2H	0.00	0.00	663287.27	726812.78	32°49'19.001N	103°43'46.431W	N/A

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	
PBHL	5879.00	282.93	-4624.21	663570.20	722188.57	Point	



Plan: Plan #2 (#2H/1)
Created By: Russell W. Joyner
Date: 9/11/2012



Company: Devon Energy				Date: 9/11/2012		Time: 11:29:24		Page: 1		
Field: Lea County, New Mexico (NAD 83)				Co-ordinate(NE) Reference: Well #2H, Gnd North						
Site: Caswell-23 Fed #2H				Vertical (TVD) Reference: SITE:4057'0						
Well: #2H				Section (VS) Reference: Well (0 00N,0 00E,273'50Azi)						
Wellpath: 1				Survey Calculation Method: Minimum Curvature Db: Sybase						
Plan: Plan #2				Date Composed: 9/11/2012						
Principal: Yes				Version: 1						
				Tied-to: From Surface						
Field: Lea County, New Mexico (NAD 83)										
Map System: US State Plane Coordinate System 1983					Map Zone: New Mexico, Eastern Zone					
Geo Datum: GRS 1980					Coordinate System: Well Centre					
Sys Datum: Mean Sea Level					Geomagnetic Model: IGRF2010					
Site: Caswell 23 Fed #2H										
Site Position:		Northing: 663287.27 ft		Latitude: 32 49 19.001 N						
From: Map		Easting: 726812.78 ft		Longitude: 103 43 46.431 W						
Position Uncertainty: 0 00 ft				North Reference: Grid						
Ground Level: 4037 00 ft				Grid Convergence: 0 33 deg						
Well: #2H Slot Name:										
Well Position: +N/-S 0 00 ft		Northing: 663287.27 ft		Latitude: 32 49 19.001 N						
+E/-W 0 00 ft		Easting: 726812.78 ft		Longitude: 103 43 46.431 W						
Position Uncertainty: 0 00 ft										
Wellpath: 1										
Current Datum: SITE		Height: 4057.00 ft		Drilled From: Surface						
Magnetic Data: 10/15/2012				Tie-on Depth: 0 00 ft						
Field Strength: 48851 nT				Above System Datum: Mean Sea Level						
Vertical Section: Depth From (TVD)				Declination: 7.54 deg						
ft		+N/-S ft		Mag Dip Angle: 60 68 deg						
		ft		+E/-W ft		Direction deg				
0 00		0.00		0.00		273 50				
Plan Section Information										
MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0 00	0 00	273 50	0 00	0 00	0 00	0.00	0.00	0.00	0.00	
5447 39	0.00	273 50	5447 39	0.00	0.00	0.00	0.00	0.00	0.00	
6367 38	92 00	273 50	6020 00	36 21	-591 84	10 00	10 00	0 00	273.50	
10409 75	92 00	273 50	5879 00	282 93	-4624 21	0.00	0 00	0.00	0 00	PBHL
Survey										
MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comments
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
5400 00	0.00	273 50	5400 00	0.00	0 00	0 00	0 00	663287 27	726812 78	
5447 39	0 00	273 50	5447 39	0.00	0 00	0 00	0 00	663287 27	726812 78	KOP
5450.00	0 26	273 50	5450 00	0 00	-0 01	0 01	10.00	663287 27	726812 77	
5500.00	5 26	273.50	5499 93	0 15	-2 41	2 41	10.00	663287 42	726810.37	
5550 00	10 26	273 50	5549 45	0 56	-9 15	9 16	10.00	663287 83	726803 63	
5600 00	15 26	273 50	5598 20	1 23	-20 17	20 20	10 00	663288 50	726792 61	
5650 00	20 26	273.50	5645 80	2 17	-35 39	35 45	10 00	663289 44	726777 39	
5700 00	25 26	273 50	5691 90	3 35	-54 69	54 79	10 00	663290 62	726758 09	
5750 00	30 26	273 50	5736 13	4 77	-77 93	78.07	10.00	663292 04	726734 85	
5800 00	35 26	273 50	5778 16	6 42	-104.92	105.12	10 00	663293 69	726707 86	
5850 00	40 26	273 50	5817 68	8 29	-135 48	135.73	10 00	663295 56	726677 30	
5900.00	45 26	273 50	5854 37	10 36	-169.35	169.67	10 00	663297 63	726643 43	
5950.00	50 26	273.50	588							



Weatherford

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy Date: 9/11/2012 Time: 11:29:24 Page: 2
Field: Lea County, New Mexico (NAD 83) Co-ordinate(NE) Reference: Well #2H, Grid North
Site: Caswell 23 Fed #2H Vertical (TVD) Reference: SITE 4057.0
Well: #2H Section (VS) Reference: Well (0.00N 0.00E 273.50Azi)
Wellpath: 1 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
6200.00	75.26	273.50	6001.49	26.09	-426.39	427.19	10.00	663313.36	726386.39	
6250.00	80.26	273.50	6012.09	29.07	-475.15	476.04	10.00	663316.34	726337.63	
6300.00	85.26	273.50	6018.39	32.10	-524.64	525.62	10.00	663319.37	726288.14	
6350.00	90.26	273.50	6020.34	35.15	-574.49	575.57	10.00	663322.42	726238.29	
6367.38	92.00	273.50	6020.00	36.21	-591.84	592.94	10.00	663323.48	726220.94	LP
6400.00	92.00	273.50	6018.86	38.20	-624.38	625.54	0.00	663325.47	726188.40	
6500.00	92.00	273.50	6015.37	44.31	-724.13	725.48	0.00	663331.58	726088.65	
6600.00	92.00	273.50	6011.89	50.41	-823.88	825.42	0.00	663337.68	725988.90	
6700.00	92.00	273.50	6008.40	56.51	-923.63	925.36	0.00	663343.78	725889.15	
6800.00	92.00	273.50	6004.91	62.62	-1023.39	1025.30	0.00	663349.89	725789.39	
6900.00	92.00	273.50	6001.42	68.72	-1123.14	1125.24	0.00	663355.99	725689.64	
7000.00	92.00	273.50	5997.93	74.82	-1222.89	1225.18	0.00	663362.09	725589.89	
7100.00	92.00	273.50	5994.45	80.93	-1322.64	1325.12	0.00	663368.20	725490.14	
7200.00	92.00	273.50	5990.96	87.03	-1422.40	1425.06	0.00	663374.30	725390.38	
7300.00	92.00	273.50	5987.47	93.13	-1522.15	1525.00	0.00	663380.40	725290.63	
7400.00	92.00	273.50	5983.98	99.24	-1621.90	1624.94	0.00	663386.51	725190.88	
7500.00	92.00	273.50	5980.49	105.34	-1721.66	1724.87	0.00	663392.61	725091.12	
7600.00	92.00	273.50	5977.00	111.44	-1821.41	1824.81	0.00	663398.71	724991.37	
7700.00	92.00	273.50	5973.52	117.55	-1921.16	1924.75	0.00	663404.82	724891.62	
7800.00	92.00	273.50	5970.03	123.65	-2020.91	2024.69	0.00	663410.92	724791.87	
7900.00	92.00	273.50	5966.54	129.75	-2120.67	2124.63	0.00	663417.02	724692.11	
8000.00	92.00	273.50	5963.05	135.86	-2220.42	2224.57	0.00	663423.13	724592.36	
8100.00	92.00	273.50	5959.56	141.96	-2320.17	2324.51	0.00	663429.23	724492.61	
8200.00	92.00	273.50	5956.08	148.06	-2419.92	2424.45	0.00	663435.33	724392.86	
8300.00	92.00	273.50	5952.59	154.17	-2519.68	2524.39	0.00	663441.44	724293.10	
8400.00	92.00	273.50	5949.10	160.27	-2619.43	2624.33	0.00	663447.54	724193.35	
8500.00	92.00	273.50	5945.61	166.37	-2719.18	2724.27	0.00	663453.64	724093.60	
8600.00	92.00	273.50	5942.12	172.48	-2818.93	2824.21	0.00	663459.75	723993.85	
8700.00	92.00	273.50	5938.64	178.58	-2918.69	2924.14	0.00	663465.85	723894.09	
8800.00	92.00	273.50	5935.15	184.68	-3018.44	3024.08	0.00	663471.95	723794.34	
8900.00	92.00	273.50	5931.66	190.79	-3118.19	3124.02	0.00	663478.06	723694.59	
9000.00	92.00	273.50	5928.17	196.89	-3217.94	3223.96	0.00	663484.16	723594.84	
9100.00	92.00	273.50	5924.68	202.99	-3317.70	3323.90	0.00	663490.26	723495.08	
9200.00	92.00	273.50	5921.20	209.09	-3417.45	3423.84	0.00	663496.36	723395.33	
9300.00	92.00	273.50	5917.71	215.20	-3517.20	3523.78	0.00	663502.47	723295.58	
9400.00	92.00	273.50	5914.22	221.30	-3616.95	3623.72	0.00	663508.57	723195.83	
9500.00	92.00	273.50	5910.73	227.40	-3716.71	3723.66	0.00	663514.67	723096.07	
9600.00	92.00	273.50	5907.24	233.51	-3816.46	3823.60	0.00	663520.78	722996.32	
9700.00	92.00	273.50	5903.76	239.61	-3916.21	3923.54	0.00	663526.88	722896.57	
9800.00	92.00	273.50	5900.27	245.71	-4015.97	4023.47	0.00	663532.98	722796.81	
9900.00	92.00	273.50	5896.78	251.82	-4115.72	4123.41	0.00	663539.09	722697.06	
10000.00	92.00	273.50	5893.29	257.92	-4215.47	4223.35	0.00	663545.19	722597.31	
10100.00	92.00	273.50	5889.80	264.02	-4315.22	4323.29	0.00	663551.29	722497.56	
10200.00	92.00	273.50	5886.32	270.13	-4414.98	4423.23	0.00	663557.40	722397.80	
10300.00	92.00	273.50	5882.83	276.23	-4514.73	4523.17	0.00	663563.50	722298.05	
10409.75	92.00	273.50	5879.00	282.93	-4624.21	4632.86	0.00	663570.20	722188.57	PBHL



Weatherford

WFT Plan Report - X & Y's



Company: Devon Energy	Date: 9/11/2012	Time: 11:29:24	Page: 3
Field: Lea County, New Mexico (NAD 83)	Co-ordinate(NE) Reference: Well #2H, Grid North		
Site: Caswell 23 Fed #2H	Vertical (TVD) Reference: SITE 4057'0		
Well: #2H	Section (VS) Reference: Well (0 00N, 0 00E, 273'50Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature Db: Sybase		

Targets

Name	Description	TVD	+N/-S	+E/-W	Map Northing	Map Easting	Latitude	Longitude
Dip	Dir.	ft	ft	ft	ft	ft	Deg Min Sec	Deg Min Sec
PBHL		5879 00	282.93	-4624 21	663570 20	722188.57	32 49 22 058 N	103 44 40 601 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD	TVD	
ft	ft	
5447.39	5447.39	KOP
6367.38	6020.00	LP
10409.75	5879.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

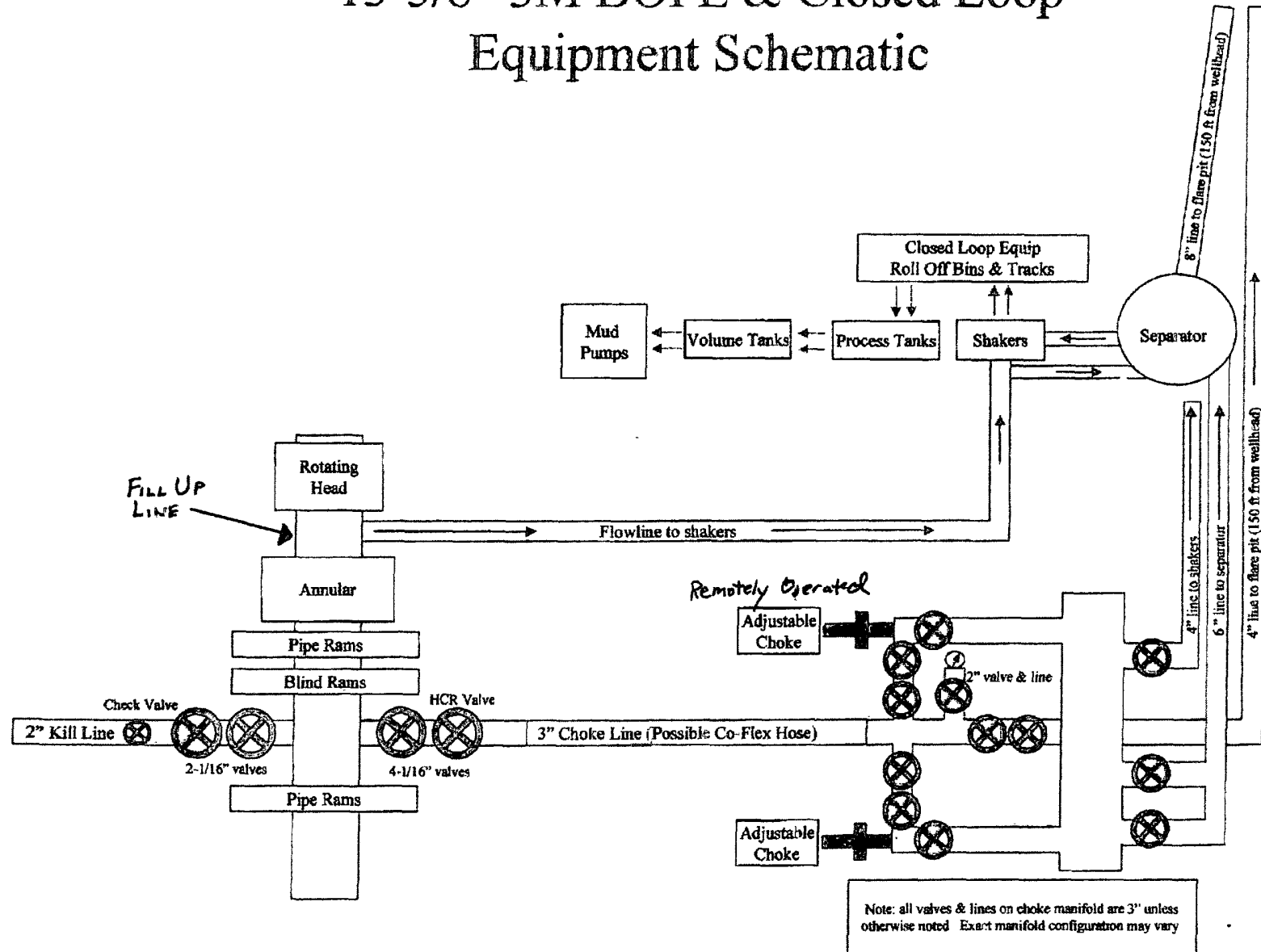
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP

Caswell 23 Federal 2H

Surface Location: 1950 FNL & 330 FEL, Unit H, Sec 23 T17S R32E, Lea, NM
Bottom Hole Location: 1650 FNL & 330 FWL, Unit E, Sec 23 T17S R32E, Lea, NM

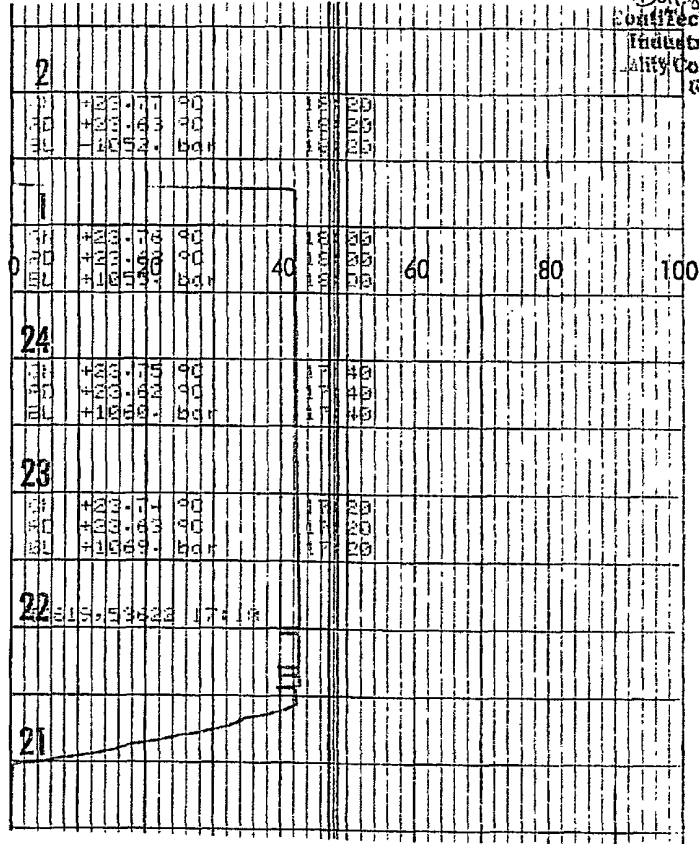
1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 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.

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



QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1713	
PURCHASER: ContiTech Beattie Co.				P.O. N°: 002808	
CONTITECH ORDER N°: 426127		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 53622		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type	Serial N°		Quality	Heat N°	
3" coupling with 4 1/16" Flange end	5503 2029		AISI 4130 AISI 4130	N1590P 27566	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate:"B"	
All metal parts are flawless				Hose conform to NACE MR 01-75	
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements. COUNTRY OF ORIGIN HUNGARY/EU					
Date:	Inspector		Quality Control		
25. August. 2008			ContiTech Rubber Industrial Kft. Quality Control Dept. (U)		

HARTMANN &



Conf. Tech Rubber
Industrial Kft.
Quality Control Dept.
(2)