OCD Hobbs

Form 3160-3
(March 2012)

HOBBS OCD

JUL 11 2013

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
S: NMNM-113964; B: NMLC-061863A

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
C-02-0007106

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

8. Lease Name and Well No. (40025)
Cotton Draw 33-4 Fed Com 2H

2. Name of Operator Devon Energy Production Company, L.P. (6137)

9. API Well No.
30-025-41264

3a. Address 333 W. Sheridan Ave.
Oklahoma City, OK 73102

3b. Phone No. *(include area code)*
405-552-7848

10. Field and Pool, or Exploratory (49400)
PADUCA ~~SOUTH~~, DELAWARE North

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 330' FNL & 1345' FWL, Unit C PP: 330' FNL & 1345' FWL
At proposed prod. zone 330' FSL & 1980' FWL, Unit N; Sec 4,T25S-R32E

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 33, T24S-R32E

14. Distance in miles and direction from nearest town or post office*
Approximately 21 miles East of Malaga, NM

12. County or Parish
Lea County

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
330'

16. No. of acres in lease
NMNM-113964; 360 ac.
NMLC-061683A; 1,882.6 ac

17. Spacing Unit dedicated to this well
E/2 W/2 of Sec 33, T24S-R32E & E/2 W/2 of Sec 4, T25S-R32E = 320.06 acres

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

19. Proposed Depth
TVD: 8,525' MD: 18,231'

20. BLM/BIA Bond No. on file
CO-1104 & NMB-000801

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3,515.3' GL

22. Approximate date work will start*
07/01/2013

23. Estimated duration
45 days

24. Attachments
To be pad drilled w/Cotton Draw 33-4 Fed Com 1H

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 Patti Riechers
Name *(Printed/Typed)* Patti Riechers
Date 04/08/2013

Title
Regulatory Compliance Professional

Approved by *(Signature)* /s/George MacDonell
Name *(Printed/Typed)* /s/George MacDonell
Date JUL 8 2013

Title FIELD MANAGER
Office BLM 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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

07/12/13

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

JUL 16 2013

HOBBS OCD

JUL 11 2013

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DRILLING PROGRAM

Devon Energy Production Company, LP
Cotton Draw 33-4 Federal 2H Com

Surface Location: 330' FNL & 1345' FWL, Unit C, Sec 33, T24S-R32E, Lea, NM
Bottom Hole Location: 330' FSL & 1980' FWL, Unit N, Sec 4, T25S-R32E, Lea, NM

1. Geologic Name of Surface Formation

a. Quaternary

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

a.	Fresh Water	390'	
b.	Rustler	750'	
c.	Top of Salt	1,144'	
d.	Base of Salt	4,350'	
e.	Delaware	4,567'	Oil
f.	Bell Canyon	4,604'	Oil
g.	Cherry Canyon	5,525'	Oil
h.	Brushy Canyon	6,871'	Oil
	Total Depth	18,231' MD	8,525' TVD

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

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17-1/2"	0 – ~~875'~~ 900	13-3/8"	0 – 875'	48#	STC	H-40
12-1/4"	~~875' – 4,500'~~ 4650	9-5/8"	0 – 4,500'	40#	BTC	HCK-55
8-3/4"	~~4,500'~~ – 7,500'	5-1/2"	0 – 7,500'	17#	LTC	HCP-110
8-3/4"	7,500' – 18,231'	5-1/2"	7,500' – 18,231'	17#	BTC	HCP-110

See COA

MAXIMUM LATERAL TVD **8,525'**

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13-3/8" 48# H-40 STC	1.69	3.81	7.67
9-5/8" 40# HCK-55 BTC	1.81	1.69	21.94
5-1/2" 17# HCP-110 LTC	2.13	3.03	4.28
5-1/2" 17# HCP-110 BTC	1.87	2.67	1.76

4. **Cement Program: (cement volumes Surface 100%/ Intermediate 50% Production based on at least 25% excess):**

13 3/8" Surface **Lead: 300 sx** 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: 1.75 cf/sk. **TOC @ surface**

Tail: 515 sx 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" Intermed. **Lead: 900 sx** (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, 12.9 ppg, Yield: 1.85 cf/sk, **TOC @ surface**

Tail: 360 sx 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 **1st Lead: 250** sx (50:50) Class H Cement:Poz (Fly Ash) + 10% bwoc Bentonite + 8 lb/sk Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 0.3% bwoc HR-601 + 0.3% bwoc Econolite + 77.2% Fresh Water, 11.8 ppg, **Yield**: 2.52 cf/sk

2nd Lead: 250 sx (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, 12.5 ppg, **Yield**: 1.95 cf/sk

Tail: 2800 sx (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, **TOC @ 4000'**

The above cement volumes could be revised pending the caliper measurement from the open hole logs.

5. Pressure Control Equipment

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

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

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 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

Depth	Mud Wt.	Visc.	Fluid Loss	Type System
0 – ~~875'~~ 900	8.4-9.0	30 – 34	N/C	FW
~~875'~~ – ~~4,500'~~ 4650	9.8 – 10.0	28 – 32	N/C	Brine
~~4,500'~~ – 18,231'	8.6 – 9.0	28 – 32	N/C-12	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

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:**
   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. **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 3800 psi and Estimated BHT 150°. 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 30 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

COTTON DRAW 33-4 FED COM 2H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

MARCH 12, 2013

Weatherford International, Ltd.
P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com

devon

Cotton Draw 33-4 Federal Com 2H
Lea County, New Mexico

LEGEND
Cotton Draw 33-4 Federal Com 2H,1,Plan #1
Cotton Draw 33-4 Federal 1H (1)
1

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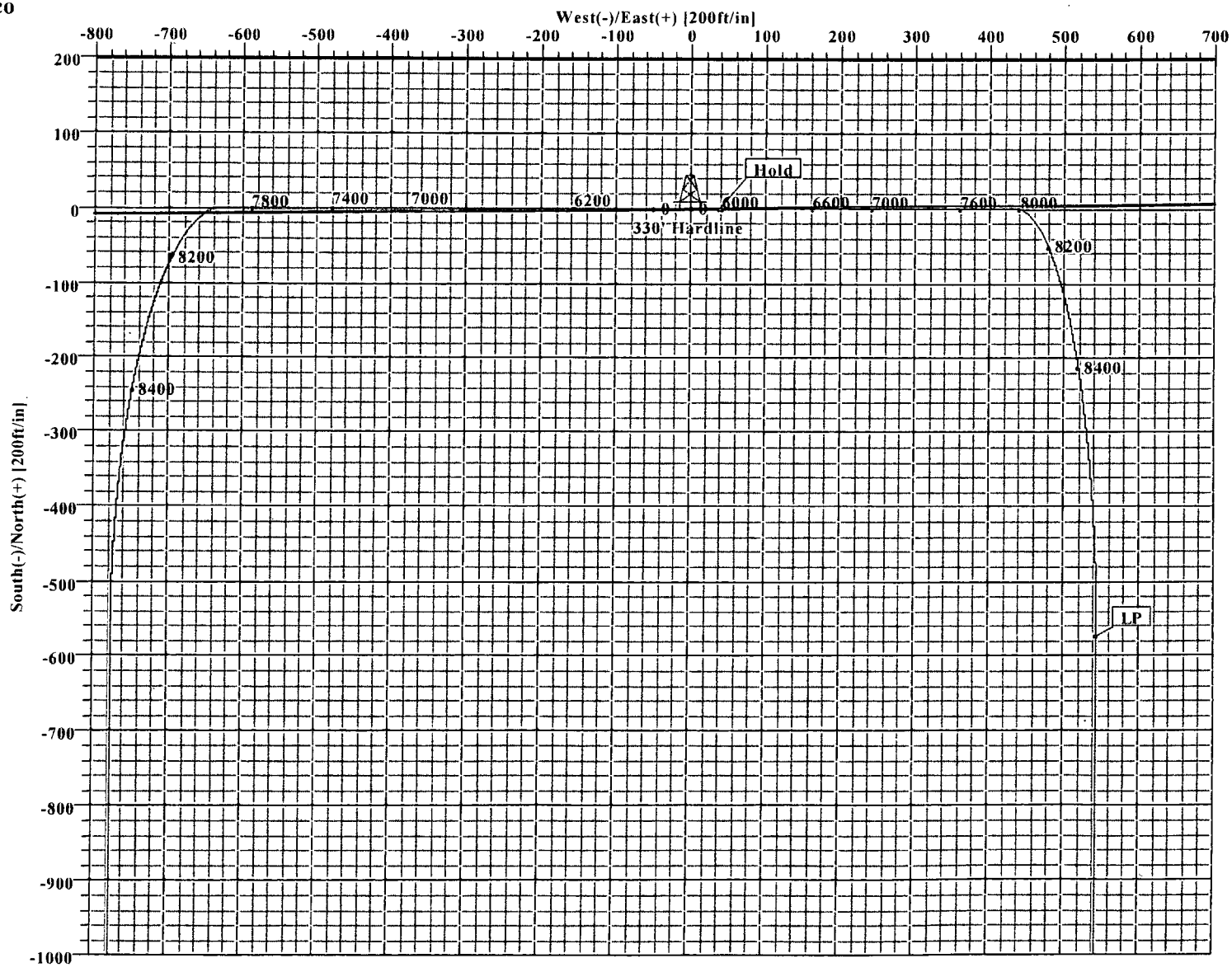


Wellpath: (Cotton Draw 33-4 Federal Com 2H/1)
Created By: Russell W. Joyner Date: 3/12/2013

devon

Cotton Draw 33-4 Federal Com 2H
Lea County, New Mexico

KB ELEV: 3340
GL ELEV: 3315

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	5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	0.00	
3	5974.98	11.25	90.00	5972.58	0.00	36.69	3.00	0.00	2.02	
4	8004.46	11.25	90.00	7963.06	-0.03	432.61	0.00	0.00	23.80	
5	8904.45	90.00	180.00	8525.00	-572.99	544.38	10.00	90.00	602.04	
6	18230.73	90.00	180.00	8525.00	-9899.27	544.38	0.00	0.00	9914.23	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Cotton Draw 33-4 Federal Com 2H	0.00	0.00	429942.75	742290.44	32°10'49.153N	103°41'01.714W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	8525.00	-9899.27	544.38	420043.48	742834.82	Rectangle (9326x50)

SITE DETAILS

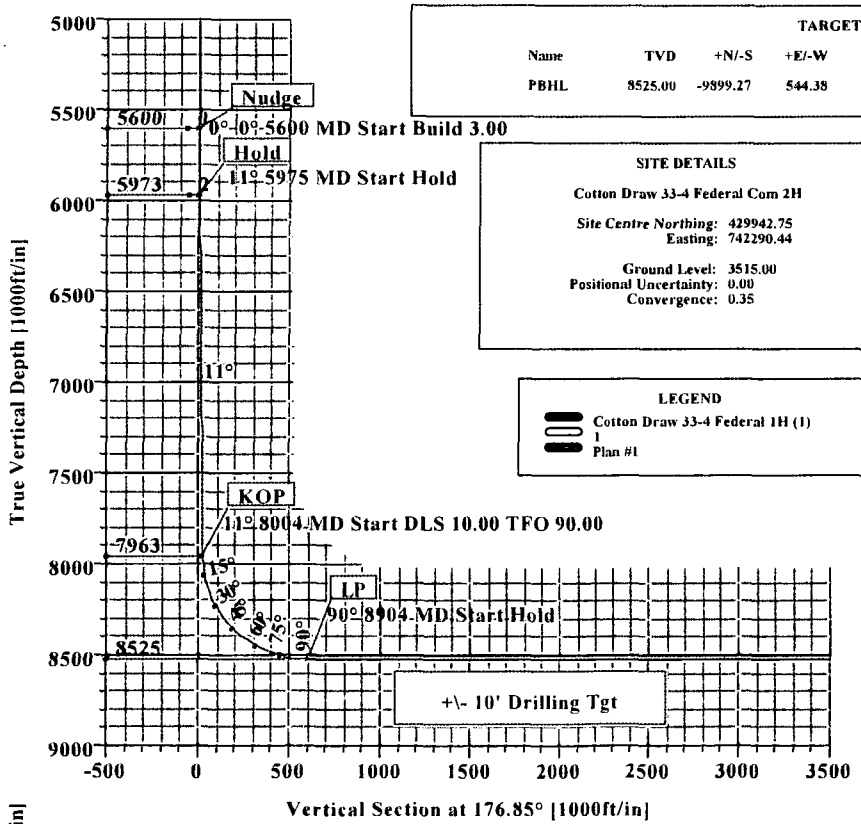
Cotton Draw 33-4 Federal Com 2H

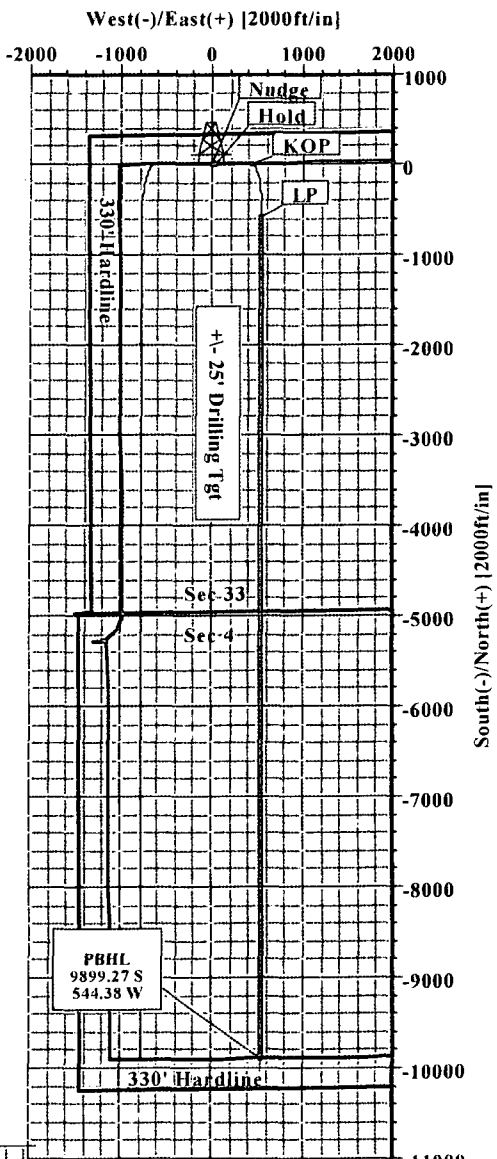
Site Centre Northing: 429942.75
Easting: 742290.44

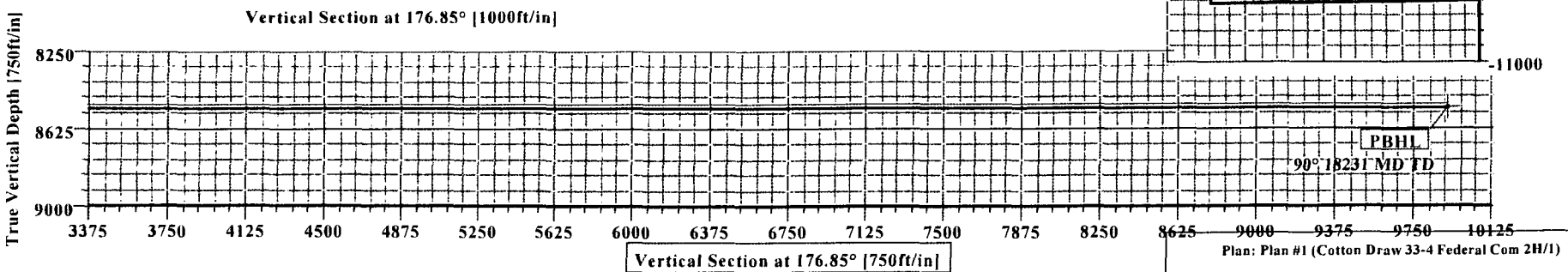
Ground Level: 3515.00
Positional Uncertainty: 0.00
Convergence: 0.35

LEGEND

Cotton Draw 33-4 Federal 1H (1)
1
Plan #1







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Plan: Plan #1 (Cotton Draw 33-4 Federal Com 2H/1)

Created By: Russell W. Joyner Date: 3/12/2013

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Wft Plan Report X Y's.

Company:	Devon Energy	**Date:** 3/12/2013 **Time:** 06:53:23	**Page:** 1
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Cotton Draw 33-4 Federal Com 2H
Site:	Cotton Draw 33-4 Federal Com 2H	**Vertical (TVD) Reference:**	SITE 3340.0
Well:	Cotton Draw 33-4 Federal Com 2	**Section (VS) Reference:**	Well (0.00N,0.00E,176.85Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan:	Plan #1	**Date Composed:**	3/11/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Site: Cotton Draw 33-4 Federal Com 2H

Site Position:		**Northing:**	429942.75 ft	**Latitude:**	32 10 49.153 N
From:	Map	**Easting:**	742290.44 ft	**Longitude:**	103 41 1.714 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3515.00 ft			**Grid Convergence:**	0.35 deg

Well: Cotton Draw 33-4 Federal Com 2 **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	429942.75 ft	**Latitude:**	32 10 49.153 N
	+E/-W	0.00 ft	**Easting :**	742290.44 ft	**Longitude:**	103 41 1.714 W
Position Uncertainty:		0.00 ft				

Wellpath: 1

Drilled From:	Surface				
Tie-on Depth:	0.00 ft				
Current Datum:	SITE	**Height**	3340.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	6/25/2013			**Declination:**	7.39 deg
Field Strength:	48400 nT			**Mag Dip Angle:**	60.08 deg

Vertical Section:	**Depth From (TVD)**	**+N/-S**	**+E/-W**	**Direction**
	ft	ft	ft	deg
	0.00	0.00	0.00	176.85

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5974.98	11.25	90.00	5972.58	0.00	36.69	3.00	3.00	0.00	0.00	
8004.46	11.25	90.00	7963.06	-0.03	432.61	0.00	0.00	0.00	0.00	
8904.45	90.00	180.00	8525.00	-572.99	544.38	10.00	8.75	10.00	90.00	
18230.73	90.00	180.00	8525.00	-9899.27	544.38	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
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	0.00	429942.75	742290.44	
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	429942.75	742290.44	Nudge
5700.00	3.00	90.00	5699.95	0.00	2.62	0.14	3.00	429942.75	742293.06	
5800.00	6.00	90.00	5799.63	0.00	10.46	0.58	3.00	429942.75	742300.90	
5900.00	9.00	90.00	5898.77	0.00	23.51	1.29	3.00	429942.75	742313.95	
5974.98	11.25	90.00	5972.58	0.00	36.69	2.02	3.00	429942.75	742327.13	Hold
6000.00	11.25	90.00	5997.11	0.00	41.57	2.29	0.00	429942.75	742332.01	
6100.00	11.25	90.00	6095.19	0.00	61.08	3.36	0.00	429942.75	742351.52	
6200.00	11.25	90.00	6193.27	-0.01	80.59	4.43	0.00	429942.74	742371.03	
6300.00	11.25	90.00	6291.35	-0.01	100.10	5.51	0.00	429942.74	742390.54	
6400.00	11.25	90.00	6389.43	-0.01	119.61	6.58	0.00	429942.74	742410.05	
6500.00	11.25	90.00	6487.51	-0.01	139.12	7.65	0.00	429942.74	742429.56	
6600.00	11.25	90.00	6585.59	-0.01	158.62	8.73	0.00	429942.74	742449.06	
6700.00	11.25	90.00	6683.67	-0.01	178.13	9.80	0.00	429942.74	742468.57	
6800.00	11.25	90.00	6781.74	-0.01	197.64	10.87	0.00	429942.74	742488.08	
6900.00	11.25	90.00	6879.82	-0.02	217.15	11.95	0.00	429942.73	742507.59	
7000.00	11.25	90.00	6977.90	-0.02	236.66	13.02	0.00	429942.73	742527.10	
7100.00	11.25	90.00	7075.98	-0.02	256.16	14.09	0.00	429942.73	742546.60	
7200.00	11.25	90.00	7174.06	-0.02	275.67	15.17	0.00	429942.73	742566.11	
7300.00	11.25	90.00	7272.14	-0.02	295.18	16.24	0.00	429942.73	742585.62	
7400.00	11.25	90.00	7370.22	-0.02	314.69	17.32	0.00	429942.73	742605.13	

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Wft Plan Report X Y's.

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Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Cotton Draw 33-4 Federal Com 2H
Well: Cotton Draw 33-4 Federal Com 2
Wellpath: 1

Date: 3/12/2013 **Time:** 06:53:23 **Page:** 2
Co-ordinate(NE) Reference: Well: Cotton Draw 33-4 Federal Com 2H
Vertical (TVD) Reference: SITE 3340.0
Section (VS) Reference: Well (0.00N,0.00E,176.85Azi)
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
7500.00	11.25	90.00	7468.30	-0.02	334.20	18.39	0.00	429942.73	742624.64	
7600.00	11.25	90.00	7566.37	-0.03	353.71	19.46	0.00	429942.72	742644.15	
7700.00	11.25	90.00	7664.45	-0.03	373.21	20.54	0.00	429942.72	742663.65	
7800.00	11.25	90.00	7762.53	-0.03	392.72	21.61	0.00	429942.72	742683.16	
7900.00	11.25	90.00	7860.61	-0.03	412.23	22.68	0.00	429942.72	742702.67	
8000.00	11.25	90.00	7958.69	-0.03	431.74	23.76	0.00	429942.72	742722.18	
8004.46	11.25	90.00	7963.06	-0.03	432.61	23.80	0.00	429942.72	742723.05	KOP
8100.00	14.72	130.79	8056.33	-7.98	451.16	32.76	10.00	429934.77	742741.60	
8200.00	22.45	151.22	8151.14	-33.08	470.02	58.86	10.00	429909.67	742760.46	
8300.00	31.44	161.02	8240.24	-74.58	487.74	101.27	10.00	429868.17	742778.18	
8400.00	40.87	166.71	8320.91	-131.23	503.79	158.72	10.00	429811.52	742794.23	
8500.00	50.49	170.56	8390.71	-201.30	517.67	229.44	10.00	429741.45	742808.11	
8600.00	60.20	173.46	8447.52	-282.67	528.97	311.31	10.00	429660.08	742819.41	
8700.00	69.96	175.84	8489.60	-372.85	537.34	401.82	10.00	429569.90	742827.78	
8800.00	79.76	177.94	8515.69	-469.12	542.53	498.22	10.00	429473.63	742832.97	
8900.00	89.56	179.91	8524.98	-568.54	544.38	597.60	10.00	429374.21	742834.82	
8904.45	90.00	180.00	8525.00	-572.99	544.38	602.04	10.00	429369.76	742834.82	LP
9000.00	90.00	180.00	8525.00	-668.54	544.38	697.44	0.00	429274.21	742834.82	
9100.00	90.00	180.00	8525.00	-768.54	544.38	797.29	0.00	429174.21	742834.82	
9200.00	90.00	180.00	8525.00	-868.54	544.38	897.14	0.00	429074.21	742834.82	
9300.00	90.00	180.00	8525.00	-968.54	544.38	996.99	0.00	428974.21	742834.82	
9400.00	90.00	180.00	8525.00	-1068.54	544.38	1096.84	0.00	428874.21	742834.82	
9500.00	90.00	180.00	8525.00	-1168.54	544.38	1196.69	0.00	428774.21	742834.82	
9600.00	90.00	180.00	8525.00	-1268.54	544.38	1296.54	0.00	428674.21	742834.82	
9700.00	90.00	180.00	8525.00	-1368.54	544.38	1396.39	0.00	428574.21	742834.82	
9800.00	90.00	180.00	8525.00	-1468.54	544.38	1496.24	0.00	428474.21	742834.82	
9900.00	90.00	180.00	8525.00	-1568.54	544.38	1596.08	0.00	428374.21	742834.82	
10000.00	90.00	180.00	8525.00	-1668.54	544.38	1695.93	0.00	428274.21	742834.82	
10100.00	90.00	180.00	8525.00	-1768.54	544.38	1795.78	0.00	428174.21	742834.82	
10200.00	90.00	180.00	8525.00	-1868.54	544.38	1895.63	0.00	428074.21	742834.82	
10300.00	90.00	180.00	8525.00	-1968.54	544.38	1995.48	0.00	427974.21	742834.82	
10400.00	90.00	180.00	8525.00	-2068.54	544.38	2095.33	0.00	427874.21	742834.82	
10500.00	90.00	180.00	8525.00	-2168.54	544.38	2195.18	0.00	427774.21	742834.82	
10600.00	90.00	180.00	8525.00	-2268.54	544.38	2295.03	0.00	427674.21	742834.82	
10700.00	90.00	180.00	8525.00	-2368.54	544.38	2394.88	0.00	427574.21	742834.82	
10800.00	90.00	180.00	8525.00	-2468.54	544.38	2494.72	0.00	427474.21	742834.82	
10900.00	90.00	180.00	8525.00	-2568.54	544.38	2594.57	0.00	427374.21	742834.82	
11000.00	90.00	180.00	8525.00	-2668.54	544.38	2694.42	0.00	427274.21	742834.82	
11100.00	90.00	180.00	8525.00	-2768.54	544.38	2794.27	0.00	427174.21	742834.82	
11200.00	90.00	180.00	8525.00	-2868.54	544.38	2894.12	0.00	427074.21	742834.82	
11300.00	90.00	180.00	8525.00	-2968.54	544.38	2993.97	0.00	426974.21	742834.82	
11400.00	90.00	180.00	8525.00	-3068.54	544.38	3093.82	0.00	426874.21	742834.82	
11500.00	90.00	180.00	8525.00	-3168.54	544.38	3193.67	0.00	426774.21	742834.82	
11600.00	90.00	180.00	8525.00	-3268.54	544.38	3293.52	0.00	426674.21	742834.82	
11700.00	90.00	180.00	8525.00	-3368.54	544.38	3393.36	0.00	426574.21	742834.82	
11800.00	90.00	180.00	8525.00	-3468.54	544.38	3493.21	0.00	426474.21	742834.82	
11900.00	90.00	180.00	8525.00	-3568.54	544.38	3593.06	0.00	426374.21	742834.82	
12000.00	90.00	180.00	8525.00	-3668.54	544.38	3692.91	0.00	426274.21	742834.82	
12100.00	90.00	180.00	8525.00	-3768.54	544.38	3792.76	0.00	426174.21	742834.82	
12200.00	90.00	180.00	8525.00	-3868.54	544.38	3892.61	0.00	426074.21	742834.82	
12300.00	90.00	180.00	8525.00	-3968.54	544.38	3992.46	0.00	425974.21	742834.82	
12400.00	90.00	180.00	8525.00	-4068.54	544.38	4092.31	0.00	425874.21	742834.82	
12500.00	90.00	180.00	8525.00	-4168.54	544.38	4192.16	0.00	425774.21	742834.82	

Weatherford
Wft Plan Report X Y's.

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Cotton Draw 33-4 Federal Com 2H
Well: Cotton Draw 33-4 Federal Com 2
Wellpath: 1

Date: 3/12/2013 **Time:** 06:53:23 **Page:** 3
Co-ordinate(NE) Reference: Well: Cotton Draw 33-4 Federal Com 2H
Vertical (TVD) Reference: SITE 3340.0
Section (VS) Reference: Well (0.00N,0.00E,176.85Azi)
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
12600.00	90.00	180.00	8525.00	-4268.54	544.38	4292.01	0.00	425674.21	742834.82	
12700.00	90.00	180.00	8525.00	-4368.54	544.38	4391.85	0.00	425574.21	742834.82	
12800.00	90.00	180.00	8525.00	-4468.54	544.38	4491.70	0.00	425474.21	742834.82	
12900.00	90.00	180.00	8525.00	-4568.54	544.38	4591.55	0.00	425374.21	742834.82	
13000.00	90.00	180.00	8525.00	-4668.54	544.38	4691.40	0.00	425274.21	742834.82	
13100.00	90.00	180.00	8525.00	-4768.54	544.38	4791.25	0.00	425174.21	742834.82	
13200.00	90.00	180.00	8525.00	-4868.54	544.38	4891.10	0.00	425074.21	742834.82	
13300.00	90.00	180.00	8525.00	-4968.54	544.38	4990.95	0.00	424974.21	742834.82	
13400.00	90.00	180.00	8525.00	-5068.54	544.38	5090.80	0.00	424874.21	742834.82	
13500.00	90.00	180.00	8525.00	-5168.54	544.38	5190.65	0.00	424774.21	742834.82	
13600.00	90.00	180.00	8525.00	-5268.54	544.38	5290.49	0.00	424674.21	742834.82	
13700.00	90.00	180.00	8525.00	-5368.54	544.38	5390.34	0.00	424574.21	742834.82	
13800.00	90.00	180.00	8525.00	-5468.54	544.38	5490.19	0.00	424474.21	742834.82	
13900.00	90.00	180.00	8525.00	-5568.54	544.38	5590.04	0.00	424374.21	742834.82	
14000.00	90.00	180.00	8525.00	-5668.54	544.38	5689.89	0.00	424274.21	742834.82	
14100.00	90.00	180.00	8525.00	-5768.54	544.38	5789.74	0.00	424174.21	742834.82	
14200.00	90.00	180.00	8525.00	-5868.54	544.38	5889.59	0.00	424074.21	742834.82	
14300.00	90.00	180.00	8525.00	-5968.54	544.38	5989.44	0.00	423974.21	742834.82	
14400.00	90.00	180.00	8525.00	-6068.54	544.38	6089.29	0.00	423874.21	742834.82	
14500.00	90.00	180.00	8525.00	-6168.54	544.38	6189.13	0.00	423774.21	742834.82	
14600.00	90.00	180.00	8525.00	-6268.54	544.38	6288.98	0.00	423674.21	742834.82	
14700.00	90.00	180.00	8525.00	-6368.54	544.38	6388.83	0.00	423574.21	742834.82	
14800.00	90.00	180.00	8525.00	-6468.54	544.38	6488.68	0.00	423474.21	742834.82	
14900.00	90.00	180.00	8525.00	-6568.54	544.38	6588.53	0.00	423374.21	742834.82	
15000.00	90.00	180.00	8525.00	-6668.54	544.38	6688.38	0.00	423274.21	742834.82	
15100.00	90.00	180.00	8525.00	-6768.54	544.38	6788.23	0.00	423174.21	742834.82	
15200.00	90.00	180.00	8525.00	-6868.54	544.38	6888.08	0.00	423074.21	742834.82	
15300.00	90.00	180.00	8525.00	-6968.54	544.38	6987.93	0.00	422974.21	742834.82	
15400.00	90.00	180.00	8525.00	-7068.54	544.38	7087.77	0.00	422874.21	742834.82	
15500.00	90.00	180.00	8525.00	-7168.54	544.38	7187.62	0.00	422774.21	742834.82	
15600.00	90.00	180.00	8525.00	-7268.54	544.38	7287.47	0.00	422674.21	742834.82	
15700.00	90.00	180.00	8525.00	-7368.54	544.38	7387.32	0.00	422574.21	742834.82	
15800.00	90.00	180.00	8525.00	-7468.54	544.38	7487.17	0.00	422474.21	742834.82	
15900.00	90.00	180.00	8525.00	-7568.54	544.38	7587.02	0.00	422374.21	742834.82	
16000.00	90.00	180.00	8525.00	-7668.54	544.38	7686.87	0.00	422274.21	742834.82	
16100.00	90.00	180.00	8525.00	-7768.54	544.38	7786.72	0.00	422174.21	742834.82	
16200.00	90.00	180.00	8525.00	-7868.54	544.38	7886.57	0.00	422074.21	742834.82	
16300.00	90.00	180.00	8525.00	-7968.54	544.38	7986.41	0.00	421974.21	742834.82	
16400.00	90.00	180.00	8525.00	-8068.54	544.38	8086.26	0.00	421874.21	742834.82	
16500.00	90.00	180.00	8525.00	-8168.54	544.38	8186.11	0.00	421774.21	742834.82	
16600.00	90.00	180.00	8525.00	-8268.54	544.38	8285.96	0.00	421674.21	742834.82	
16700.00	90.00	180.00	8525.00	-8368.54	544.38	8385.81	0.00	421574.21	742834.82	
16800.00	90.00	180.00	8525.00	-8468.54	544.38	8485.66	0.00	421474.21	742834.82	
16900.00	90.00	180.00	8525.00	-8568.54	544.38	8585.51	0.00	421374.21	742834.82	
17000.00	90.00	180.00	8525.00	-8668.54	544.38	8685.36	0.00	421274.21	742834.82	
17100.00	90.00	180.00	8525.00	-8768.54	544.38	8785.21	0.00	421174.21	742834.82	
17200.00	90.00	180.00	8525.00	-8868.54	544.38	8885.05	0.00	421074.21	742834.82	
17300.00	90.00	180.00	8525.00	-8968.54	544.38	8984.90	0.00	420974.21	742834.82	
17400.00	90.00	180.00	8525.00	-9068.54	544.38	9084.75	0.00	420874.21	742834.82	
17500.00	90.00	180.00	8525.00	-9168.54	544.38	9184.60	0.00	420774.21	742834.82	
17600.00	90.00	180.00	8525.00	-9268.54	544.38	9284.45	0.00	420674.21	742834.82	
17700.00	90.00	180.00	8525.00	-9368.54	544.38	9384.30	0.00	420574.21	742834.82	

devon

Weatherford
Wft Plan Report X Y's.

Weatherford

Company:	Devon Energy	**Date:** 3/12/2013 **Time:** 06:53:23	**Page:** 4
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Cotton Draw 33-4 Federal Com 2H
Site:	Cotton Draw 33-4 Federal Com 2H	**Vertical (TVD) Reference:**	SITE 3340.0
Well:	Cotton Draw 33-4 Federal Com 2	**Section (VS) Reference:**	Well (0.00N,0.00E,176.85Azi)
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
17800.00	90.00	180.00	8525.00	-9468.54	544.38	9484.15	0.00	420474.21	742834.82	
17900.00	90.00	180.00	8525.00	-9568.54	544.38	9584.00	0.00	420374.21	742834.82	
18000.00	90.00	180.00	8525.00	-9668.54	544.38	9683.85	0.00	420274.21	742834.82	
18100.00	90.00	180.00	8525.00	-9768.54	544.38	9783.70	0.00	420174.21	742834.82	
18200.00	90.00	180.00	8525.00	-9868.54	544.38	9883.54	0.00	420074.21	742834.82	
18230.73	90.00	180.00	8525.00	-9899.27	544.38	9914.23	0.00	420043.48	742834.82	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			8525.00	-9899.27	544.38	420043.48	742834.82	32	9	11.162 N	103	40	56.077 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
5600.00	5600.00	Nudge
5974.98	5972.58	Hold
8004.46	7963.06	KOP
8904.45	8525.00	LP
18230.73	0.00	PBHL

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 3/12/2013 **Time:** 06:48:38	**Page:** 1
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Cotton Draw 33-4 Federal Com 2H	**Co-ordinate(NE) Reference:**	Well: Cotton Draw 33-4 Federal Com 2H
Reference Well:	Cotton Draw 33-4 Federal Com 2	**Vertical (TVD) Reference:**	SITE 3340.0
Reference Wellpath:			**Db:** Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria		**Reference:**	Plan: Plan #1
Interpolation Method:	MD + Stations **Interval:** 100.00 ft	**Error Model:**	ISCWSA Ellipse
Depth Range:	0.00 **to** 18230.73 ft	**Scan Method:**	Closest Approach 3D
Maximum Radius:	10000.00 ft	**Error Surface:**	Ellipse

Plan:	Plan #1	**Date Composed:**	3/11/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Summary

<---------- Offset Wellpath ----------> Site	Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Cotton Draw 33-4 Fed	Cotton Draw 33-4 Fed	V0 Plan: Plan #1 V1	5600.00	5598.72	50.50	25.59	2.03	

Site: Cotton Draw 33-4 Federal 1H
Well: Cotton Draw 33-4 Federal 1H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	269.33	-0.58	-49.86	49.86			No Data
100.00	100.00	100.00	100.00	0.11	0.08	269.33	-0.58	-49.86	49.86	49.67	253.54	
200.00	200.00	200.00	200.00	0.34	0.31	269.33	-0.58	-49.86	49.86	49.22	77.16	
300.00	300.00	300.00	300.00	0.56	0.53	269.33	-0.58	-49.86	49.86	48.77	45.51	
400.00	400.00	400.00	400.00	0.79	0.76	269.33	-0.58	-49.86	49.86	48.32	32.27	
500.00	500.00	500.00	500.00	1.01	0.98	269.33	-0.58	-49.86	49.86	47.87	25.00	
600.00	600.00	600.00	600.00	1.24	1.21	269.33	-0.58	-49.86	49.86	47.42	20.40	
700.00	700.00	700.00	700.00	1.46	1.43	269.33	-0.58	-49.86	49.86	46.97	17.23	
800.00	800.00	800.00	800.00	1.69	1.66	269.33	-0.58	-49.86	49.86	46.52	14.91	
900.00	900.00	900.00	900.00	1.91	1.88	269.33	-0.58	-49.86	49.86	46.07	13.15	
1000.00	1000.00	1000.00	1000.00	2.14	2.11	269.33	-0.58	-49.86	49.86	45.62	11.75	
1100.00	1100.00	1100.00	1100.00	2.36	2.33	269.33	-0.58	-49.86	49.86	45.17	10.63	
1200.00	1200.00	1200.00	1200.00	2.58	2.56	269.33	-0.58	-49.86	49.86	44.72	9.70	
1300.00	1300.00	1300.00	1300.00	2.81	2.78	269.33	-0.58	-49.86	49.86	44.27	8.92	
1400.00	1400.00	1400.00	1400.00	3.03	3.01	269.33	-0.58	-49.86	49.86	43.82	8.25	
1500.00	1500.00	1500.00	1500.00	3.26	3.23	269.33	-0.58	-49.86	49.86	43.37	7.68	
1600.00	1600.00	1600.00	1600.00	3.48	3.46	269.33	-0.58	-49.86	49.86	42.92	7.19	
1700.00	1700.00	1700.00	1700.00	3.71	3.68	269.33	-0.58	-49.86	49.86	42.47	6.75	
1800.00	1800.00	1800.00	1800.00	3.93	3.91	269.33	-0.58	-49.86	49.86	42.02	6.36	
1900.00	1900.00	1900.00	1900.00	4.16	4.13	269.33	-0.58	-49.86	49.86	41.58	6.02	
2000.00	2000.00	2000.00	2000.00	4.38	4.35	269.33	-0.58	-49.86	49.86	41.13	5.71	
2100.00	2100.00	2100.00	2100.00	4.61	4.58	269.33	-0.58	-49.86	49.86	40.68	5.43	
2200.00	2200.00	2200.00	2200.00	4.83	4.80	269.33	-0.58	-49.86	49.86	40.23	5.17	
2300.00	2300.00	2300.00	2300.00	5.06	5.03	269.33	-0.58	-49.86	49.86	39.78	4.94	
2400.00	2400.00	2400.00	2400.00	5.28	5.25	269.33	-0.58	-49.86	49.86	39.33	4.73	
2500.00	2500.00	2500.00	2500.00	5.51	5.48	269.33	-0.58	-49.86	49.86	38.88	4.54	
2600.00	2600.00	2600.00	2600.00	5.73	5.70	269.33	-0.58	-49.86	49.86	38.43	4.36	
2700.00	2700.00	2700.00	2700.00	5.96	5.93	269.33	-0.58	-49.86	49.86	37.98	4.20	
2800.00	2800.00	2800.00	2800.00	6.18	6.15	269.33	-0.58	-49.86	49.86	37.53	4.04	
2900.00	2900.00	2900.00	2900.00	6.41	6.38	269.33	-0.58	-49.86	49.86	37.08	3.90	
3000.00	3000.00	3000.00	3000.00	6.63	6.60	269.33	-0.58	-49.86	49.86	36.63	3.77	
3100.00	3100.00	3100.00	3100.00	6.86	6.83	269.33	-0.58	-49.86	49.86	36.18	3.64	
3200.00	3200.00	3200.00	3200.00	7.08	7.05	269.33	-0.58	-49.86	49.86	35.73	3.53	
3300.00	3300.00	3300.00	3300.00	7.30	7.28	269.33	-0.58	-49.86	49.86	35.28	3.42	
3400.00	3400.00	3400.00	3400.00	7.53	7.50	269.33	-0.58	-49.86	49.86	34.83	3.32	
3500.00	3500.00	3500.00	3500.00	7.75	7.73	269.33	-0.58	-49.86	49.86	34.38	3.22	

Company:	Devon Energy	**Date:** 3/12/2013 **Time:** 06:48:38	**Page:** 2
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Cotton Draw 33-4 Federal Com 2H	**Co-ordinate(NE) Reference:**	Well: Cotton Draw 33-4 Federal Com 2H
Reference Well:	Cotton Draw 33-4 Federal Com 2	**Vertical (TVD) Reference:**	SITE.3340.0
Reference Wellpath:			**Db:** Sybase

Site: Cotton Draw 33-4 Federal 1H
Well: Cotton Draw 33-4 Federal 1H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Separation Distance ft	Factor	Warning
3600.00	3600.00	3600.00	3600.00	7.98	7.95	269.33	-0.58	-49.86	49.86	33.93	3.13	
3700.00	3700.00	3700.00	3700.00	8.20	8.18	269.33	-0.58	-49.86	49.86	33.48	3.04	
3800.00	3800.00	3800.00	3800.00	8.43	8.40	269.33	-0.58	-49.86	49.86	33.03	2.96	
3900.00	3900.00	3900.00	3900.00	8.65	8.63	269.33	-0.58	-49.86	49.86	32.58	2.89	
4000.00	4000.00	4000.00	4000.00	8.88	8.85	269.33	-0.58	-49.86	49.86	32.13	2.81	
4100.00	4100.00	4100.00	4100.00	9.10	9.07	269.33	-0.58	-49.86	49.86	31.69	2.74	
4200.00	4200.00	4200.00	4200.00	9.33	9.30	269.33	-0.58	-49.86	49.86	31.24	2.68	
4300.00	4300.00	4300.00	4300.00	9.55	9.52	269.33	-0.58	-49.86	49.86	30.79	2.61	
4400.00	4400.00	4400.00	4400.00	9.78	9.75	269.33	-0.58	-49.86	49.86	30.34	2.55	
4500.00	4500.00	4500.00	4500.00	10.00	9.97	269.33	-0.58	-49.86	49.86	29.89	2.50	
4600.00	4600.00	4600.00	4600.00	10.23	10.20	269.33	-0.58	-49.86	49.86	29.44	2.44	
4700.00	4700.00	4700.00	4700.00	10.45	10.42	269.33	-0.58	-49.86	49.86	28.99	2.39	
4800.00	4800.00	4800.00	4800.00	10.68	10.65	269.33	-0.58	-49.86	49.86	28.54	2.34	
4900.00	4900.00	4900.00	4900.00	10.90	10.87	269.33	-0.58	-49.86	49.86	28.09	2.29	
5000.00	5000.00	5000.00	5000.00	11.13	11.10	269.33	-0.58	-49.86	49.86	27.64	2.24	
5100.00	5100.00	5100.00	5100.00	11.35	11.32	269.33	-0.58	-49.86	49.86	27.19	2.20	
5200.00	5200.00	5200.00	5200.00	11.58	11.55	269.33	-0.58	-49.86	49.86	26.74	2.16	
5300.00	5300.00	5300.00	5300.00	11.80	11.77	269.33	-0.58	-49.86	49.86	26.29	2.12	
5400.00	5400.00	5400.00	5400.00	12.02	12.00	269.33	-0.58	-49.86	49.86	25.84	2.08	
5500.00	5500.00	5500.00	5500.00	12.25	12.22	269.33	-0.58	-49.86	49.86	25.39	2.04	
5600.00	5600.00	5598.72	5598.71	12.47	12.44	269.34	-0.58	-50.48	50.50	25.59	2.03	
5700.00	5699.95	5695.66	5695.52	12.69	12.63	179.42	-0.58	-55.41	58.20	32.94	2.30	
5800.00	5799.63	5790.71	5790.07	12.89	12.82	179.55	-0.58	-65.01	76.08	50.52	2.98	
5900.00	5898.77	5882.47	5880.79	13.09	13.02	179.66	-0.58	-78.72	103.81	78.02	4.03	
5974.98	5972.58	5948.38	5945.50	13.26	13.16	179.72	-0.58	-91.26	130.79	104.87	5.05	
6000.00	5997.11	5969.79	5966.42	13.31	13.21	179.74	-0.58	-95.81	140.77	114.79	5.42	
6100.00	6095.19	6053.41	6047.60	13.54	13.41	179.79	-0.58	-115.82	183.20	156.95	6.98	
6200.00	6193.27	6143.06	6134.17	13.78	13.64	179.83	-0.59	-139.11	227.51	200.89	8.54	
6300.00	6291.35	6232.70	6220.74	14.02	13.88	179.86	-0.59	-162.40	271.83	244.82	10.06	
6400.00	6389.43	6322.34	6307.30	14.28	14.14	179.88	-0.59	-185.68	316.15	288.74	11.54	
6500.00	6487.51	6411.99	6393.87	14.54	14.40	179.89	-0.59	-208.97	360.46	332.67	12.97	
6600.00	6585.59	6501.63	6480.44	14.81	14.68	179.90	-0.59	-232.26	404.78	376.59	14.36	
6700.00	6683.67	6591.28	6567.00	15.09	14.97	179.91	-0.60	-255.55	449.10	420.50	15.70	
6800.00	6781.74	6680.92	6653.57	15.37	15.27	179.92	-0.60	-278.83	493.41	464.41	17.01	
6900.00	6879.82	6770.56	6740.13	15.66	15.57	179.93	-0.60	-302.12	537.73	508.32	18.28	
7000.00	6977.90	6860.21	6826.70	15.96	15.89	179.93	-0.60	-325.41	582.05	552.22	19.51	
7100.00	7075.98	6949.85	6913.27	16.26	16.21	179.94	-0.60	-348.69	626.36	596.12	20.71	
7200.00	7174.06	7039.50	6999.83	16.57	16.55	179.94	-0.60	-371.98	670.68	640.02	21.87	
7300.00	7272.14	7129.14	7086.40	16.88	16.89	179.94	-0.61	-395.27	715.00	683.91	23.00	
7400.00	7370.22	7218.78	7172.97	17.20	17.23	179.95	-0.61	-418.56	759.31	727.80	24.09	
7500.00	7468.30	7308.43	7259.53	17.52	17.58	179.95	-0.61	-441.84	803.63	771.69	25.16	
7600.00	7566.37	7398.07	7346.10	17.84	17.94	179.95	-0.61	-465.13	847.95	815.57	26.19	
7700.00	7664.45	7487.72	7432.67	18.17	18.31	179.95	-0.61	-488.42	892.26	859.45	27.19	
7800.00	7762.53	7577.36	7519.23	18.51	18.68	179.96	-0.61	-511.70	936.58	903.33	28.17	
7900.00	7860.61	7667.00	7605.80	18.84	19.05	179.96	-0.62	-534.99	980.90	947.21	29.12	
8000.00	7958.69	7756.65	7692.36	19.19	19.43	179.96	-0.62	-558.28	1025.21	991.08	30.04	
8004.46	7963.06	7760.64	7696.22	19.20	19.45	179.96	-0.62	-559.32	1027.19	993.04	30.08	
8050.00	8007.68	7801.43	7735.61	19.30	19.63	156.06	-0.62	-569.91	1047.35	1012.99	30.48	
8100.00	8056.33	7845.89	7778.55	19.31	19.82	135.89	-0.62	-581.46	1069.36	1034.76	30.91	
8150.00	8104.28	7889.71	7820.86	19.24	20.01	122.27	-0.62	-592.85	1091.14	1056.30	31.31	
8200.00	8151.14	7932.55	7862.23	19.10	20.19	113.04	-0.62	-603.97	1112.65	1077.54	31.69	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 3/12/2013 **Time:** 06:48:38	**Page:** 3
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Cotton Draw 33-4 Federal Com 2H	**Co-ordinate(NE) Reference:**	Well: Cotton Draw 33-4 Federal Com 2H
Reference Well:	Cotton Draw 33-4 Federal Com 2	**Vertical (TVD) Reference:**	SITE 3340.0
Reference Wellpath:			**Db:** Sybase

Site: Cotton Draw 33-4 Federal 1H
Well: Cotton Draw 33-4 Federal 1H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
8250.00	8196.58	7974.08	7902.33	18.94	20.37	106.51	-0.62	-614.76	1133.86	1098.49	32.05	
8300.00	8240.24	8013.99	7940.87	18.82	20.55	101.67	-0.62	-625.13	1154.80	1119.15	32.39	
8350.00	8281.79	8058.69	7984.01	18.79	20.68	98.08	-1.93	-636.73	1175.42	1139.46	32.69	
8400.00	8320.91	8107.03	8030.40	18.83	20.73	95.31	-7.21	-649.21	1195.49	1159.20	32.95	
8450.00	8357.31	8158.73	8079.34	18.92	20.66	93.14	-17.33	-662.38	1214.85	1178.21	33.16	
8500.00	8390.71	8214.56	8130.97	19.06	20.47	91.48	-33.33	-676.27	1233.36	1196.32	33.30	
8550.00	8420.86	8275.41	8185.23	19.24	20.17	90.24	-56.60	-690.86	1250.80	1213.34	33.38	
8600.00	8447.52	8342.32	8241.78	19.44	19.82	89.38	-88.90	-706.08	1266.97	1229.03	33.39	
8650.00	8470.49	8416.40	8299.66	19.68	19.57	88.86	-132.34	-721.65	1281.60	1243.12	33.31	
8700.00	8489.60	8498.67	8357.00	19.94	19.52	88.63	-189.18	-737.07	1294.39	1255.30	33.11	
8750.00	8504.71	8589.81	8410.62	20.24	19.71	88.61	-261.34	-751.50	1304.99	1265.21	32.80	
8800.00	8515.69	8689.71	8455.89	20.57	20.07	88.71	-349.41	-763.67	1313.04	1272.45	32.35	
8850.00	8522.47	8796.96	8487.28	20.92	20.61	88.85	-451.45	-772.12	1318.18	1276.68	31.76	
8900.00	8524.98	8908.68	8499.89	21.30	21.32	88.91	-562.22	-775.51	1320.14	1277.62	31.05	
8904.45	8525.00	8918.70	8500.00	21.34	21.39	88.91	-572.25	-775.54	1320.16	1277.54	30.98	
9000.00	8525.00	9015.00	8500.00	22.23	22.27	88.91	-668.54	-775.54	1320.16	1275.78	29.75	
9100.00	8525.00	9115.00	8500.00	23.27	23.28	88.91	-768.54	-775.54	1320.16	1273.74	28.44	
9200.00	8525.00	9215.00	8500.00	24.40	24.38	88.91	-868.54	-775.54	1320.16	1271.51	27.14	
9300.00	8525.00	9315.00	8500.00	25.61	25.56	88.91	-968.54	-775.54	1320.16	1269.12	25.87	
9400.00	8525.00	9415.00	8500.00	26.89	26.82	88.91	-1068.54	-775.54	1320.16	1266.59	24.64	
9500.00	8525.00	9515.00	8500.00	28.23	28.13	88.91	-1168.54	-775.54	1320.16	1263.93	23.48	
9600.00	8525.00	9615.00	8500.00	29.62	29.50	88.91	-1268.54	-775.54	1320.16	1261.17	22.38	
9700.00	8525.00	9715.00	8500.00	31.05	30.92	88.91	-1368.54	-775.54	1320.16	1258.31	21.35	
9800.00	8525.00	9815.00	8500.00	32.53	32.38	88.91	-1468.54	-775.54	1320.16	1255.38	20.38	
9900.00	8525.00	9915.00	8500.00	34.03	33.87	88.91	-1568.54	-775.54	1320.16	1252.37	19.48	
10000.00	8525.00	10015.00	8500.00	35.57	35.39	88.91	-1668.54	-775.54	1320.16	1249.31	18.63	
10100.00	8525.00	10115.00	8500.00	37.14	36.95	88.91	-1768.54	-775.54	1320.16	1246.19	17.85	
10200.00	8525.00	10215.00	8500.00	38.72	38.52	88.91	-1868.54	-775.54	1320.16	1243.02	17.12	
10300.00	8525.00	10315.00	8500.00	40.33	40.12	88.91	-1968.54	-775.54	1320.16	1239.82	16.43	
10400.00	8525.00	10415.00	8500.00	41.95	41.73	88.91	-2068.54	-775.54	1320.16	1236.58	15.79	
10500.00	8525.00	10515.00	8500.00	43.59	43.36	88.91	-2168.54	-775.54	1320.16	1233.30	15.20	
10600.00	8525.00	10615.00	8500.00	45.25	45.01	88.91	-2268.54	-775.54	1320.16	1230.00	14.64	
10700.00	8525.00	10715.00	8500.00	46.92	46.67	88.91	-2368.54	-775.54	1320.16	1226.67	14.12	
10800.00	8525.00	10815.00	8500.00	48.60	48.34	88.91	-2468.54	-775.54	1320.16	1223.31	13.63	
10900.00	8525.00	10915.00	8500.00	50.28	50.02	88.91	-2568.54	-775.54	1320.16	1219.94	13.17	
11000.00	8525.00	11015.00	8500.00	51.98	51.72	88.91	-2668.54	-775.54	1320.16	1216.55	12.74	
11100.00	8525.00	11115.00	8500.00	53.69	53.42	88.91	-2768.54	-775.54	1320.16	1213.14	12.34	
11200.00	8525.00	11215.00	8500.00	55.40	55.13	88.91	-2868.54	-775.54	1320.16	1209.71	11.95	
11300.00	8525.00	11315.00	8500.00	57.12	56.84	88.91	-2968.54	-775.54	1320.16	1206.27	11.59	
11400.00	8525.00	11415.00	8500.00	58.85	58.56	88.91	-3068.54	-775.54	1320.16	1202.82	11.25	
11500.00	8525.00	11515.00	8500.00	60.58	60.29	88.91	-3168.54	-775.54	1320.16	1199.36	10.93	
11600.00	8525.00	11615.00	8500.00	62.32	62.03	88.91	-3268.54	-775.54	1320.16	1195.88	10.62	
11700.00	8525.00	11715.00	8500.00	64.07	63.77	88.91	-3368.54	-775.54	1320.16	1192.40	10.33	
11800.00	8525.00	11815.00	8500.00	65.81	65.51	88.91	-3468.54	-775.54	1320.16	1188.91	10.06	
11900.00	8525.00	11915.00	8500.00	67.56	67.26	88.91	-3568.54	-775.54	1320.16	1185.41	9.80	
12000.00	8525.00	12015.00	8500.00	69.32	69.01	88.91	-3668.54	-775.54	1320.16	1181.90	9.55	
12100.00	8525.00	12115.00	8500.00	71.08	70.77	88.91	-3768.54	-775.54	1320.16	1178.38	9.31	
12200.00	8525.00	12215.00	8500.00	72.84	72.53	88.91	-3868.54	-775.54	1320.16	1174.86	9.09	
12300.00	8525.00	12315.00	8500.00	74.61	74.29	88.91	-3968.54	-775.54	1320.16	1171.33	8.87	
12400.00	8525.00	12415.00	8500.00	76.37	76.06	88.91	-4068.54	-775.54	1320.16	1167.79	8.66	
12500.00	8525.00	12515.00	8500.00	78.15	77.82	88.91	-4168.54	-775.54	1320.16	1164.25	8.47	

Company: Devon Energy **Date:** 3/12/2013 **Time:** 06:48:38 **Page:** 4
Field: Lea County, New Mexico (NAD 83)
Reference Site: Cotton Draw 33-4 Federal Com 2H **Co-ordinate(NE) Reference:** Well: Cotton Draw 33-4 Federal Com 2H
Reference Well: Cotton Draw 33-4 Federal Com 2 **Vertical (TVD) Reference:** SITE 3340.0
Reference Wellpath: **Db:** Sybase

Site: Cotton Draw 33-4 Federal 1H
Well: Cotton Draw 33-4 Federal 1H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset Location TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Separation Distance ft	Factor	Warning
12600.00	8525.00	12615.00	8500.00	79.92	79.60	88.91	-4268.54	-775.54	1320.16	1160.71	8.28	
12700.00	8525.00	12715.00	8500.00	81.69	81.37	88.91	-4368.54	-775.54	1320.16	1157.16	8.10	
12800.00	8525.00	12815.00	8500.00	83.47	83.14	88.91	-4468.54	-775.54	1320.16	1153.61	7.93	
12900.00	8525.00	12915.00	8500.00	85.25	84.92	88.91	-4568.54	-775.54	1320.16	1150.05	7.76	
13000.00	8525.00	13015.00	8500.00	87.03	86.70	88.91	-4668.54	-775.54	1320.16	1146.49	7.60	
13100.00	8525.00	13115.00	8500.00	88.82	88.48	88.91	-4768.54	-775.54	1320.16	1142.92	7.45	
13200.00	8525.00	13215.00	8500.00	90.60	90.27	88.91	-4868.54	-775.54	1320.16	1139.35	7.30	
13300.00	8525.00	13315.00	8500.00	92.39	92.05	88.91	-4968.54	-775.54	1320.16	1135.78	7.16	
13400.00	8525.00	13415.00	8500.00	94.18	93.84	88.91	-5068.54	-775.54	1320.16	1132.20	7.02	
13500.00	8525.00	13515.00	8500.00	95.97	95.63	88.91	-5168.54	-775.54	1320.16	1128.63	6.89	
13600.00	8525.00	13615.00	8500.00	97.76	97.42	88.91	-5268.54	-775.54	1320.16	1125.05	6.77	
13700.00	8525.00	13715.00	8500.00	99.55	99.21	88.91	-5368.54	-775.54	1320.16	1121.46	6.64	
13800.00	8525.00	13815.00	8500.00	101.34	101.00	88.91	-5468.54	-775.54	1320.16	1117.88	6.53	
13900.00	8525.00	13915.00	8500.00	103.14	102.79	88.91	-5568.54	-775.54	1320.16	1114.29	6.41	
14000.00	8525.00	14015.00	8500.00	104.93	104.59	88.91	-5668.54	-775.54	1320.16	1110.70	6.30	
14100.00	8525.00	14115.00	8500.00	106.73	106.38	88.91	-5768.54	-775.54	1320.16	1107.11	6.20	
14200.00	8525.00	14215.00	8500.00	108.53	108.18	88.91	-5868.54	-775.54	1320.16	1103.51	6.09	
14300.00	8525.00	14315.00	8500.00	110.33	109.98	88.91	-5968.54	-775.54	1320.16	1099.92	5.99	
14400.00	8525.00	14415.00	8500.00	112.12	111.77	88.91	-6068.54	-775.54	1320.16	1096.32	5.90	
14500.00	8525.00	14515.00	8500.00	113.92	113.57	88.91	-6168.54	-775.54	1320.16	1092.72	5.80	
14600.00	8525.00	14615.00	8500.00	115.73	115.37	88.91	-6268.54	-775.54	1320.16	1089.12	5.71	
14700.00	8525.00	14715.00	8500.00	117.53	117.17	88.91	-6368.54	-775.54	1320.16	1085.52	5.63	
14800.00	8525.00	14815.00	8500.00	119.33	118.97	88.91	-6468.54	-775.54	1320.16	1081.91	5.54	
14900.00	8525.00	14915.00	8500.00	121.13	120.78	88.91	-6568.54	-775.54	1320.16	1078.31	5.46	
15000.00	8525.00	15015.00	8500.00	122.94	122.58	88.91	-6668.54	-775.54	1320.16	1074.70	5.38	
15100.00	8525.00	15115.00	8500.00	124.74	124.38	88.91	-6768.54	-775.54	1320.16	1071.09	5.30	
15200.00	8525.00	15215.00	8500.00	126.55	126.19	88.91	-6868.54	-775.54	1320.16	1067.48	5.22	
15300.00	8525.00	15315.00	8500.00	128.35	127.99	88.91	-6968.54	-775.54	1320.16	1063.87	5.15	
15400.00	8525.00	15415.00	8500.00	130.16	129.80	88.91	-7068.54	-775.54	1320.16	1060.26	5.08	
15500.00	8525.00	15515.00	8500.00	131.96	131.60	88.91	-7168.54	-775.54	1320.16	1056.65	5.01	
15600.00	8525.00	15615.00	8500.00	133.77	133.41	88.91	-7268.54	-775.54	1320.16	1053.04	4.94	
15700.00	8525.00	15715.00	8500.00	135.58	135.22	88.91	-7368.54	-775.54	1320.16	1049.42	4.88	
15800.00	8525.00	15815.00	8500.00	137.39	137.02	88.91	-7468.54	-775.54	1320.16	1045.81	4.81	
15900.00	8525.00	15915.00	8500.00	139.20	138.83	88.91	-7568.54	-775.54	1320.16	1042.19	4.75	
16000.00	8525.00	16015.00	8500.00	141.01	140.64	88.91	-7668.54	-775.54	1320.16	1038.57	4.69	
16100.00	8525.00	16115.00	8500.00	142.81	142.45	88.91	-7768.54	-775.54	1320.16	1034.96	4.63	
16200.00	8525.00	16215.00	8500.00	144.62	144.26	88.91	-7868.54	-775.54	1320.16	1031.34	4.57	
16300.00	8525.00	16315.00	8500.00	146.43	146.07	88.91	-7968.54	-775.54	1320.16	1027.72	4.51	
16400.00	8525.00	16415.00	8500.00	148.25	147.88	88.91	-8068.54	-775.54	1320.16	1024.10	4.46	
16500.00	8525.00	16515.00	8500.00	150.06	149.69	88.91	-8168.54	-775.54	1320.16	1020.48	4.41	
16600.00	8525.00	16615.00	8500.00	151.87	151.50	88.91	-8268.54	-775.54	1320.16	1016.85	4.35	
16700.00	8525.00	16715.00	8500.00	153.68	153.31	88.91	-8368.54	-775.54	1320.16	1013.23	4.30	
16800.00	8525.00	16815.00	8500.00	155.49	155.12	88.91	-8468.54	-775.54	1320.16	1009.61	4.25	
16900.00	8525.00	16915.00	8500.00	157.30	156.93	88.91	-8568.54	-775.54	1320.16	1005.98	4.20	
17000.00	8525.00	17015.00	8500.00	159.12	158.75	88.91	-8668.54	-775.54	1320.16	1002.36	4.15	
17100.00	8525.00	17115.00	8500.00	160.93	160.56	88.91	-8768.54	-775.54	1320.16	998.73	4.11	
17200.00	8525.00	17215.00	8500.00	162.74	162.37	88.91	-8868.54	-775.54	1320.16	995.11	4.06	
17300.00	8525.00	17315.00	8500.00	164.56	164.18	88.91	-8968.54	-775.54	1320.16	991.48	4.02	
17400.00	8525.00	17415.00	8500.00	166.37	166.00	88.91	-9068.54	-775.54	1320.16	987.86	3.97	
17500.00	8525.00	17515.00	8500.00	168.18	167.81	88.91	-9168.54	-775.54	1320.16	984.23	3.93	
17600.00	8525.00	17615.00	8500.00	170.00	169.63	88.91	-9268.54	-775.54	1320.16	980.60	3.89	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 3/12/2013 **Time:** 06:48:38	**Page:** 5
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Cotton Draw 33-4 Federal Com 2H	**Co-ordinate(NE) Reference:**	Well: Cotton Draw 33-4 Federal Com 2H
Reference Well:	Cotton Draw 33-4 Federal Com 2	**Vertical (TVD) Reference:**	SITE 3340.0
Reference Wellpath:			**Db:** Sybase

Site: Cotton Draw 33-4 Federal 1H
Well: Cotton Draw 33-4 Federal 1H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
17700.00	8525.00	17715.00	8500.00	171.81	171.44	88.91	-9368.54	-775.54	1320.16	976.97	3.85	
17800.00	8525.00	17815.00	8500.00	173.63	173.25	88.91	-9468.54	-775.54	1320.16	973.34	3.81	
17900.00	8525.00	17915.00	8500.00	175.44	175.07	88.91	-9568.54	-775.54	1320.16	969.72	3.77	
18000.00	8525.00	18015.00	8500.00	177.26	176.88	88.91	-9668.54	-775.54	1320.16	966.09	3.73	
18100.00	8525.00	18115.00	8500.00	179.07	178.70	88.91	-9768.54	-775.54	1320.16	962.46	3.69	
18200.00	8525.00	18215.00	8500.00	180.89	180.51	88.91	-9868.54	-775.54	1320.16	958.83	3.65	
18230.73	8525.00	18245.73	8500.00	181.45	181.07	88.91	-9899.27	-775.54	1320.16	957.71	3.64	

Weatherford Drilling Services

GeoDec v5.03

Report Date:	March 12, 2013
Job Number:	
Customer:	Devon Energy
Well Name:	Cotton Draw 33-4 Fed Com 2H
API Number:	
Rig Name:	
Location:	Lea County, NM
Block:	
Engineer:	RWJ

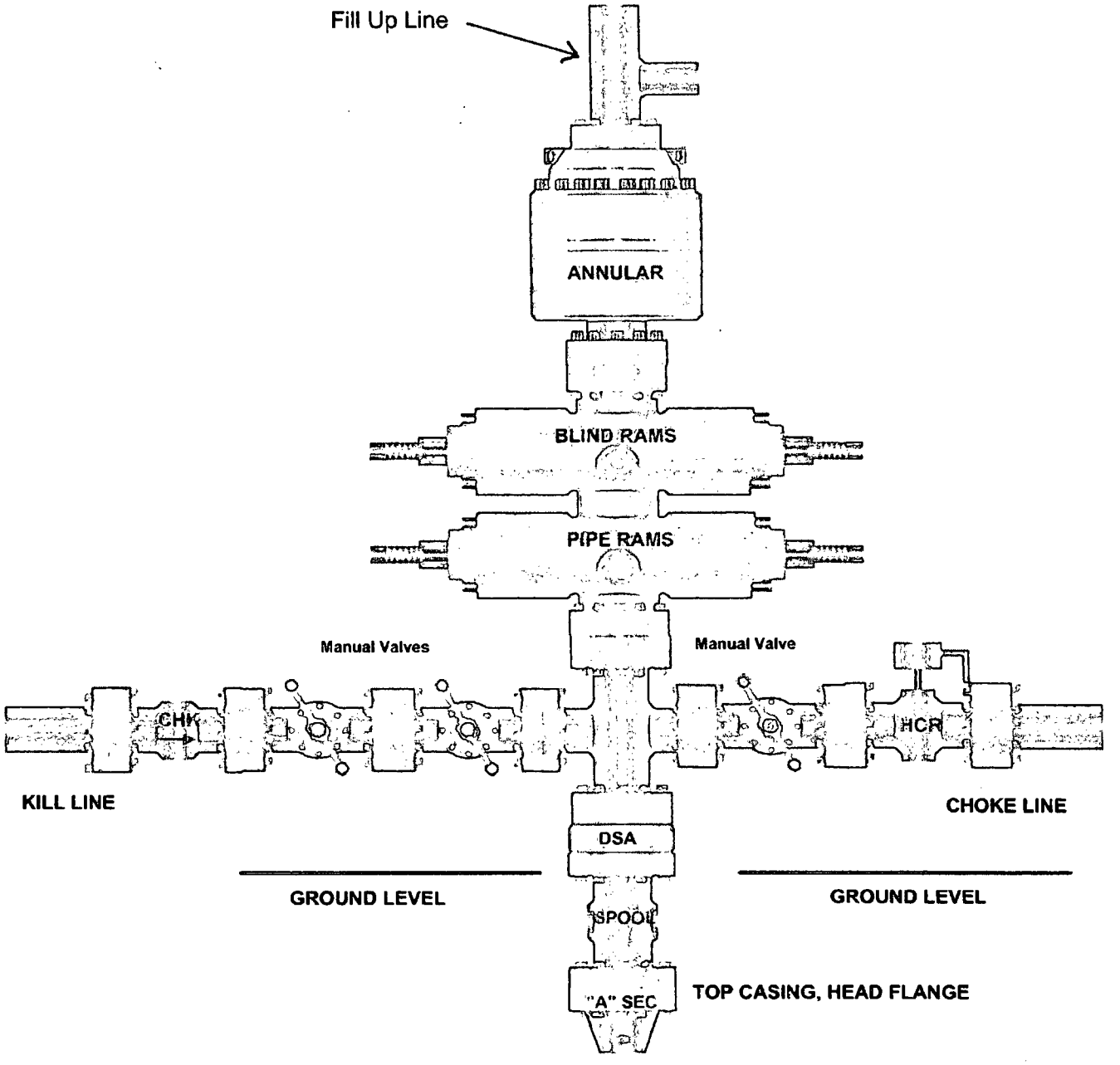
US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 429942.750 USFT	Latitude 32.1803227 DEG
East/West 742290.440 USFT	Longitude -103.6838047 DEG
Grid Convergence: .35°	
Total Correction: +7.14°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.18032° N	32° 10 min 49.162 sec
Longitude =	103.68380° W	103° 41 min 1.697 sec

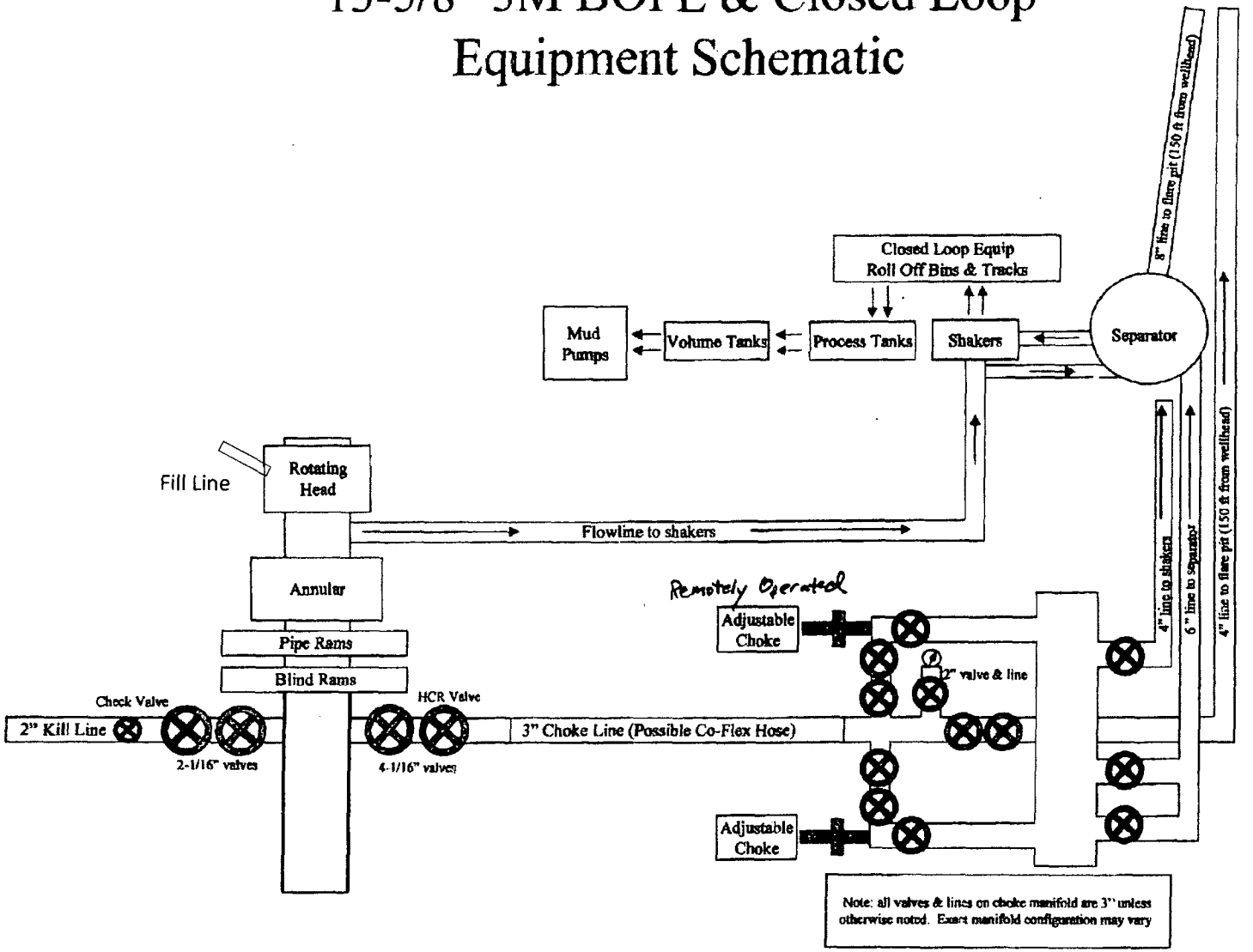
Magnetic Declination =	7.49°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6487
Local Field Strength =	48370 nT	Magnetic Vector X =	23956 nT
Magnetic Dip =	60.03°	Magnetic Vector Y =	3151 nT
Magnetic Model =	bggm2012	Magnetic Vector Z =	41902 nT
Spud Date =	Jun 25, 2013	Magnetic Vector H =	24162 nT

Signed:_____ Date:_____

13-5/8" x 3,000 psi BOP Stack



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



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP
Cotton Draw 33-4 Fed Com 2H

Surface Location: 330' FNL & 1345' FWL, Unit C, Sec 33, T24S-R32E, Lea, NM
Bottom Hole Location: 330' FSL & 1980' FWL, Unit N, Sec 4, T25S-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.

Continental CONTITECH

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

PHOENIX

QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.

H-6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax (3662) 566-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurus-marga.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°:	555	
PURCHASER:	Phoenix Beattie Co.			P.O. N°:	1519FA-871	
PHOENIX RUBBER order N°:	170466	HOSE TYPE:	3" ID	Choke and Kill Hose		
HOSE SERIAL N°:	34137	NOMINAL / ACTUAL LENGTH:		11,43 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 = 16 MPa

COUPLINGS

Type	Serial N°	Quality	Heat N°
3" coupling with	714 715	AISI 4130	C7626
4 1/16" Flange end		AISI 4130	47357

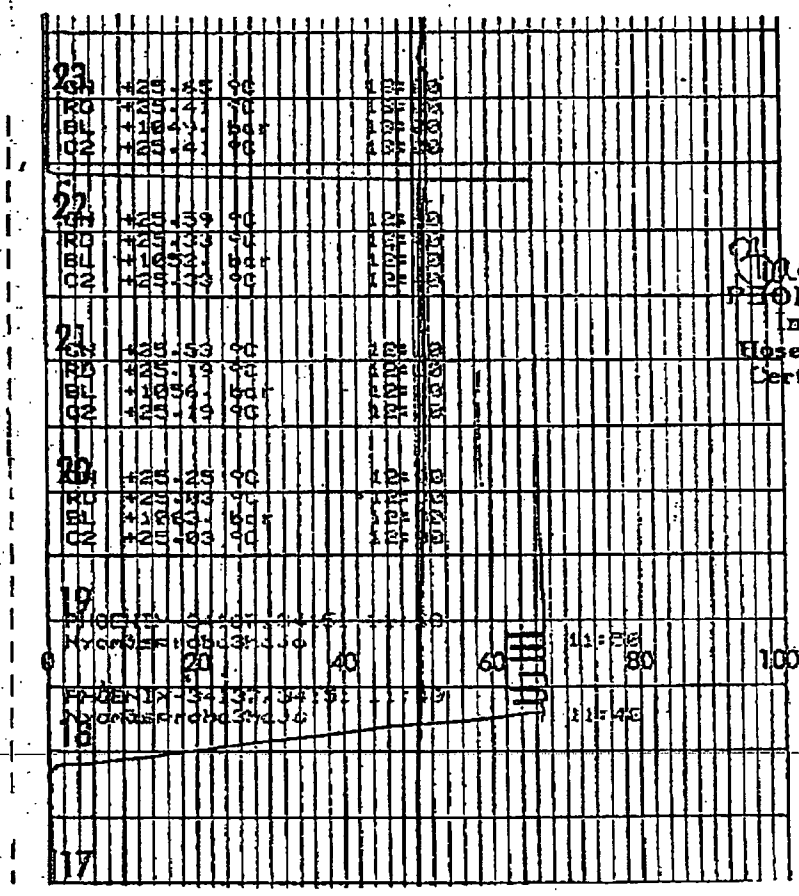
API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

Date:	Inspector	Quality Control
30. April. 2002.		PHOENIX RUBBER Industrial Ltd. Hose Inspection and Testing Department

H&P 214



PHOENIX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE COPY
PHOENIX RUBBER Ltd.