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ATS-15-60

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM113964	
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 Company, L.P. (6137)		7. If Unit or CA Agreement, Name and No.	
3a. Address 333 W. Sheridan Oklahoma City, OK 73102-5010		8. Lease Name and Well No. Paint 33 Fed 1H (314753)	
3b. Phone No. (include area code) 405.228.7203		9. API Well No. 30-025-42516 (97899)	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 200 FSL & 1315 FWL, Unit M PP: 200 FSL & 1315 FWL At proposed prod. zone 330 FNL & 660 FWL, Unit D		10. Field and Pool, or Exploratory WC-025 6-06 5253206M, B1	
11. Sec., T. R. M. or Bk. and Survey or Area Sec. 33 T24S R32E		12. County or Parish Lea County	
13. State NM		14. Distance in miles and direction from nearest town or post office* Approximately 24 miles East of Malaga, NM	
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 NMNM113964 320 ac	
17. Spacing Unit dedicated to this well 160 ac		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map	
19. Proposed Depth TVD: 10,582' MD: 15,468'		20. BLM/BIA Bond No. on file CO-1104; NBM-000801	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3489.5' GL		22. Approximate date work will start* 02/05/2014	
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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature <i>Trina C. Couch</i>	Name (Printed/Typed) Trina C. Couch	Date 09/04/2014
Title Regulatory Analyst		
Approved by (Signature) /s/ STEPHEN J. CAFFEY	Name (Printed/Typed)	Date APR 8 2015
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ
04/13/15

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

APR 14 2015

Devon Energy, Paint 33 Fed 1H

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see CWA2. Casing Program

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Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	650 875'	13.375"	48	H40	STC	2.65	5.95	17.34
12.25"	0	4550	9.625"	40	HCK-55	BTC	1.79	1.67	5.09
8.75"	0	15468	5.5"	17	HCP-110	BTC	1.67	2.07	3.11
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Devon Energy, Paint 33 Fed 1H

3. Cementing Program

Casing	# Sk	Wt. lb/gal	H ₂ O gal/sk	Yld ft ³ /sack	500# Comp. Strength (hours)	Slurry Description
Surf.	950	14.8	6.32	1.33	7	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
Inter.	970	12.9	9.81	1.85	17	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	430	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
see LOA Prod.	600	12.5	10.86	1.96	30	1 st Lead: (65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake
	1390	14.5	5.31	1.2	25	1 st Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
	DV/ECP Tool 5500'					
	240	11	14.81	2.55	22	2nd stage Lead: Tuned Light® Cement + 0.125 lb/sk Pol-E-Flake
	120	14.8	6.32	1.33	6	2nd stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	75%
Production	1 st Stage = 6500' / 2 nd Stage = 4050'	25%

Devon Energy, Paint 33 Fed 1H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
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Devon Energy, Paint 33 Fed 1H

see
COA

Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Devon proposes using a multi-bowl wellhead assembly (FMC Uni-head). This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi. - Wellhead will be installed by FMC's representatives. - If the welding is performed by a third party, the FMC's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. - FMC representative will install the test plug for the initial BOP test. - FMC will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. - If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. - Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. - Devon will test the casing to 70% of burst or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the FMC Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8" intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the FMC Uni-head. 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.

see
COA

Devon Energy, Paint 33 Fed 1H

	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
	See attached schematic.

5. Mud Program

see
col 7

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	650' 875'	FW Gel	8.6-8.8	28-34	N/C
650'	4550'	Saturated Brine	10.0-10.2	28-34	N/C
4300'	15468'	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing	
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned	Interval
	Resistivity
	Density
X	CBL
X	Mud log
	PEX

Devon Energy, Paint 33 Fed 1H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4762 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H ₂ S is present
Y	H ₂ S Plan attached

8. Other facets of operation

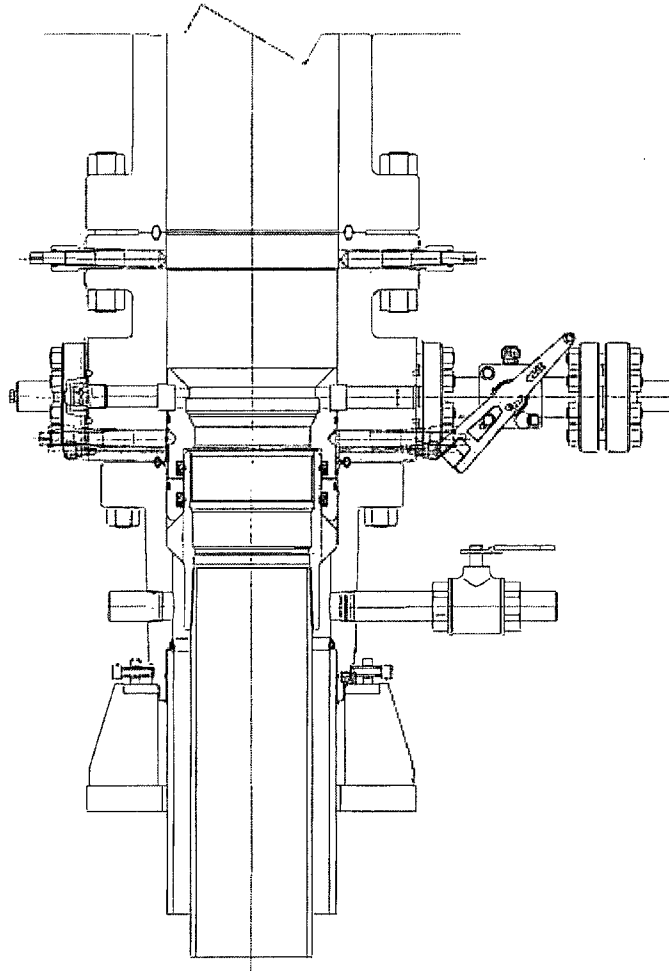
Is this a walking operation? No.

Will be pre-setting casing? No.

Attachments

☒ Directional Plan

☐ Other, describe



PRIMARY MODE

DEVON ENERGY

ARTESIA

S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

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REVISIONS	
A	05-08-13
B	1-22-14
C	5-13-14

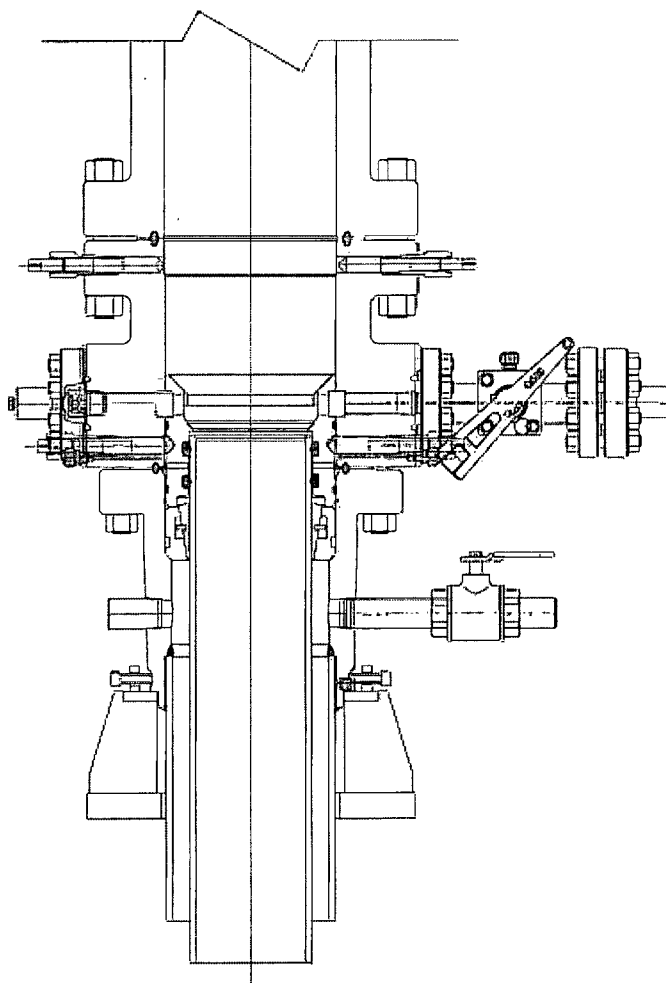
DESCRIPTION

SURFACE WELLHEAD LAYOUT
UNIHEAD, UH-1, SOW,
DEVON ENERGY, ODESSA

DRAWN BY	K. VU	05-08-13
DRAFTING REVIEW	Z. MARQUEZ	05-08-13
DESIGN REVIEW	K. TAHA	05-08-13
APPROVED BY	R. HAMILTON	05-08-13

FMC Technologies

DRAWING NUMBER
DM100161771-2A



CONTINGENCY MODE

DEVON ENERGY

ARTESIA

S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

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	A	05-08-13	K. VU	05-08-13	
	B	1-22-14	Z. MARQUEZ	05-08-13	
	C	5-13-14	K. TAHA	05-08-13	
			DESIGN REVIEW		
			APPROVED BY		
			R. HAMILTON	05-08-13	

SURFACE WELLHEAD LAYOUT
UNIHEAD, UH-1, SOW,
DEVON ENERGY, ODESSA

HOBBSOCD

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5D Plan Report

Devon Energy

Field Name: *Lea Co, NM Nad 83 NMEZ*

Site Name: *Paint 33 Fed 1H*

Well Name: *Paint 33 Fed 1H*

Plan: *P1:V1*

04 September 2014



Weatherford®

Paint 33 Fed 1H

Field Name Lea Co, NM Nad 83 NMEZ	Map Units : US ft Company Name : Devon Energy Vertical Reference Datum (VRD) : Mean Sea Level Projected Coordinate System : NAD83 / New Mexico East (ftUS) Comment :		
Site Name Paint 33 Fed 1H	Units : US ft Position	North Reference : Grid Northing : 425187.62 US ft Easting : 742297.32 US ft	Convergence Angle : 0.35 Latitude : 32° 10' 2.11" Longitude : -103° 41' 1.95" Elevation above Mean Sea Level: 3490.00 US ft Comment :
Slot Name Paint 33 Fed 1H	Position (Offsets relative to Site Centre) +N / -S : 0.00 US ft Northing : 425187.62 US ft Latitude : 32°10'2.11" +E / -W : 0.00 US ft Easting : 742297.32 US ft Longitude : -103°41'1.95" Slot TVD Reference : Ground Elevation Elevation above Mean Sea Level : 3490.00 US ft Comment :		
Well Name Paint 33 Fed 1H	Type : Main well UWI : Plan : P1:V1 Rig Height <i>Kelly Bushing</i> : 25.00 US ft Comment : Relative to Mean Sea Level: 3515.00 US ft Closure Distance : 4797.15 US ft Closure Azimuth : 351.71° Vertical Section (Position of Origin Relative to Slot) +N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 0.00° Magnetic Parameters Model : BGGM Field Strength : 48209.1nT Dec : 7.38° Dip : 60.02° Date : 15/Nov/2014		

Target Set

Name : Paint 33 Fed 1H **Number of Targets :** 1

Comment :

Target Name: PBHL 1H Shape: Cuboid	Position (Relative to Slot centre) +N / -S : 4747.03US ft Northing : 429934.65 US ft Latitude : 32°10'49.12" +E / -W : -691.66 US ft Easting : 741605.66US ft Longitude : -103°41'9.67" TVD (Kelly Bushing) : 10760.00 US ft Orientation Azimuth : 0.00° Inclination : 0.00° Dimensions Length : 8644.00 US ft Breadth : 50.00 US ft Height : 20.00 US ft		
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Well path created using minimum curvature

Salient Points (Relative to Slot centre, TVD relative to Kelly Bushing)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	BLS (°/100 US ft)	B Rate (°/100 US ft)	T Rate (°/100 US ft)	I Rate (°)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

5D Plan Report

Salient Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	D Rate (%/100 US ft)	T Rate (%/100 US ft)	Incl (°)	Comment
6217.00	0.00	0.00	6217.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nudge
7217.30	10.00	255.99	7212.23	-21.08	-84.51	-21.08	1.00	1.00	0.00	255.99	Hold
10222.26	10.00	255.99	10171.51	-147.42	-590.95	-147.42	0.00	0.00	0.00	0.00	KOP
11146.36	90.00	0.00	10760.00	425.03	-691.66	425.03	10.00	8.66	11.26	103.80	LP
15468.36	90.00	0.00	10760.00	4747.03	-691.66	4747.03	0.00	0.00	0.00	0.00	PBHL 1H

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Eastings (US ft)	Comment
6200.00	0.00	0.00	6200.00	0.00	0.00	0.00	0.00	425187.62	742297.32	Nudge
6217.00	0.00	0.00	6217.00	0.00	0.00	0.00	0.00	425187.62	742297.32	
6300.00	0.83	255.99	6300.00	-0.15	-0.58	-0.15	1.00	425187.47	742296.74	
6400.00	1.83	255.99	6399.97	-0.71	-2.84	-0.71	1.00	425186.91	742294.48	
6500.00	2.83	255.99	6499.88	-1.69	-6.78	-1.69	1.00	425185.93	742290.54	
6600.00	3.83	255.99	6599.71	-3.10	-12.42	-3.10	1.00	425184.52	742284.90	
6700.00	4.83	255.99	6699.43	-4.92	-19.74	-4.92	1.00	425182.70	742277.58	
6800.00	5.83	255.99	6798.99	-7.17	-28.75	-7.17	1.00	425180.45	742268.57	
6900.00	6.83	255.99	6898.38	-9.84	-39.45	-9.84	1.00	425177.78	742257.87	
7000.00	7.83	255.99	6997.57	-12.93	-51.83	-12.93	1.00	425174.69	742245.49	
7100.00	8.83	255.99	7096.51	-16.44	-65.89	-16.44	1.00	425171.18	742231.43	
7200.00	9.83	255.99	7195.18	-20.36	-81.62	-20.36	1.00	425167.26	742215.70	
7217.30	10.00	255.99	7212.23	-21.08	-84.51	-21.08	1.00	425166.54	742212.81	Hold
7300.00	10.00	255.99	7293.67	-24.56	-98.45	-24.56	0.00	425163.06	742198.87	
7400.00	10.00	255.99	7392.15	-28.76	-115.30	-28.76	0.00	425158.86	742182.02	
7500.00	10.00	255.99	7490.63	-32.97	-132.15	-32.97	0.00	425154.65	742165.17	
7600.00	10.00	255.99	7589.11	-37.17	-149.01	-37.17	0.00	425150.45	742148.31	
7700.00	10.00	255.99	7687.59	-41.38	-165.86	-41.38	0.00	425146.24	742131.46	
7800.00	10.00	255.99	7786.07	-45.58	-182.71	-45.58	0.00	425142.04	742114.61	
7900.00	10.00	255.99	7884.55	-49.78	-199.57	-49.78	0.00	425137.84	742097.75	
8000.00	10.00	255.99	7983.03	-53.99	-216.42	-53.99	0.00	425133.63	742080.90	
8100.00	10.00	255.99	8081.51	-58.19	-233.27	-58.19	0.00	425129.43	742064.05	
8200.00	10.00	255.99	8179.99	-62.40	-250.13	-62.40	0.00	425125.22	742047.19	
8300.00	10.00	255.99	8278.47	-66.60	-266.98	-66.60	0.00	425121.02	742030.34	
8400.00	10.00	255.99	8376.95	-70.81	-283.83	-70.81	0.00	425116.81	742013.49	
8500.00	10.00	255.99	8475.43	-75.01	-300.69	-75.01	0.00	425112.61	741996.63	
8600.00	10.00	255.99	8573.91	-79.22	-317.54	-79.22	0.00	425108.40	741979.78	
8700.00	10.00	255.99	8672.39	-83.42	-334.39	-83.42	0.00	425104.20	741962.93	
8800.00	10.00	255.99	8770.87	-87.62	-351.25	-87.62	0.00	425100.00	741946.07	
8900.00	10.00	255.99	8869.35	-91.83	-368.10	-91.83	0.00	425095.79	741929.22	
9000.00	10.00	255.99	8967.83	-96.03	-384.95	-96.03	0.00	425091.59	741912.37	
9100.00	10.00	255.99	9066.31	-100.24	-401.81	-100.24	0.00	425087.38	741895.51	
9200.00	10.00	255.99	9164.79	-104.44	-418.66	-104.44	0.00	425083.18	741878.66	
9300.00	10.00	255.99	9263.27	-108.65	-435.51	-108.65	0.00	425078.97	741861.81	
9400.00	10.00	255.99	9361.75	-112.85	-452.37	-112.85	0.00	425074.77	741844.95	
9500.00	10.00	255.99	9460.23	-117.05	-469.22	-117.05	0.00	425070.57	741828.10	
9600.00	10.00	255.99	9558.71	-121.26	-486.08	-121.26	0.00	425066.36	741811.24	
9700.00	10.00	255.99	9657.19	-125.46	-502.93	-125.46	0.00	425062.16	741794.39	
9800.00	10.00	255.99	9755.67	-129.67	-519.78	-129.67	0.00	425057.95	741777.54	
9900.00	10.00	255.99	9854.15	-133.87	-536.64	-133.87	0.00	425053.75	741760.68	
10000.00	10.00	255.99	9952.63	-138.08	-553.49	-138.08	0.00	425049.54	741743.83	
10100.00	10.00	255.99	10051.11	-142.28	-570.34	-142.28	0.00	425045.34	741726.98	
10200.00	10.00	255.99	10149.59	-146.49	-587.20	-146.49	0.00	425041.13	741710.12	
10222.26	10.00	255.99	10171.51	-147.42	-590.95	-147.42	0.00	425040.20	741706.37	KOP
10300.00	11.08	299.10	10248.05	-145.42	-604.05	-145.42	10.00	425042.20	741693.27	
10400.00	18.11	328.45	10344.88	-127.45	-620.62	-127.45	10.00	425060.17	741676.70	
10500.00	27.04	340.41	10437.17	-92.70	-636.41	-92.70	10.00	425094.92	741660.91	
10600.00	36.50	346.63	10522.11	-42.21	-650.95	-42.21	10.00	425145.41	741646.37	
10700.00	46.17	350.54	10597.12	22.47	-663.79	22.47	10.00	425210.09	741633.53	
10800.00	55.93	353.35	10659.92	99.38	-674.53	99.38	10.00	425287.00	741622.79	

5D Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	North (US ft)	East (US ft)	VS (US ft)	DIS (F/100 US ft)	North (US ft)	East (US ft)	Comment
10900.00	65.74	355.58	10708.60	186.19	-682.86	186.19	10.00	425373.81	741614.46	
11000.00	75.58	357.48	10741.68	280.26	-688.52	280.26	10.00	425467.88	741608.80	
11100.00	85.43	359.22	10758.15	378.72	-691.34	378.72	10.00	425566.34	741605.98	
11146.36	90.00	0.00	10760.00	425.03	-691.66	425.03	10.00	425612.65	741605.66	LP
11200.00	90.00	0.00	10760.00	478.67	-691.66	478.67	0.00	425666.29	741605.66	
11300.00	90.00	0.00	10760.00	578.67	-691.66	578.67	0.00	425766.29	741605.66	
11400.00	90.00	0.00	10760.00	678.67	-691.66	678.67	0.00	425866.29	741605.66	
11500.00	90.00	0.00	10760.00	778.67	-691.66	778.67	0.00	425966.29	741605.66	
11600.00	90.00	0.00	10760.00	878.67	-691.66	878.67	0.00	426066.29	741605.66	
11700.00	90.00	0.00	10760.00	978.67	-691.66	978.67	0.00	426166.29	741605.66	
11800.00	90.00	0.00	10760.00	1078.67	-691.66	1078.67	0.00	426266.29	741605.66	
11900.00	90.00	0.00	10760.00	1178.67	-691.66	1178.67	0.00	426366.29	741605.66	
12000.00	90.00	0.00	10760.00	1278.67	-691.66	1278.67	0.00	426466.29	741605.66	
12100.00	90.00	0.00	10760.00	1378.67	-691.66	1378.67	0.00	426566.29	741605.66	
12200.00	90.00	0.00	10760.00	1478.67	-691.66	1478.67	0.00	426666.29	741605.66	
12300.00	90.00	0.00	10760.00	1578.67	-691.66	1578.67	0.00	426766.29	741605.66	
12400.00	90.00	0.00	10760.00	1678.67	-691.66	1678.67	0.00	426866.29	741605.66	
12500.00	90.00	0.00	10760.00	1778.67	-691.66	1778.67	0.00	426966.29	741605.66	
12600.00	90.00	0.00	10760.00	1878.67	-691.66	1878.67	0.00	427066.29	741605.66	
12700.00	90.00	0.00	10760.00	1978.67	-691.66	1978.67	0.00	427166.29	741605.66	
12800.00	90.00	0.00	10760.00	2078.67	-691.66	2078.67	0.00	427266.29	741605.66	
12900.00	90.00	0.00	10760.00	2178.67	-691.66	2178.67	0.00	427366.29	741605.66	
13000.00	90.00	0.00	10760.00	2278.67	-691.66	2278.67	0.00	427466.29	741605.66	
13100.00	90.00	0.00	10760.00	2378.67	-691.66	2378.67	0.00	427566.29	741605.66	
13200.00	90.00	0.00	10760.00	2478.67	-691.66	2478.67	0.00	427666.29	741605.66	
13300.00	90.00	0.00	10760.00	2578.67	-691.66	2578.67	0.00	427766.29	741605.66	
13400.00	90.00	0.00	10760.00	2678.67	-691.66	2678.67	0.00	427866.29	741605.66	
13500.00	90.00	0.00	10760.00	2778.67	-691.66	2778.67	0.00	427966.29	741605.66	
13600.00	90.00	0.00	10760.00	2878.67	-691.66	2878.67	0.00	428066.29	741605.66	
13700.00	90.00	0.00	10760.00	2978.67	-691.66	2978.67	0.00	428166.29	741605.66	
13800.00	90.00	0.00	10760.00	3078.67	-691.66	3078.67	0.00	428266.29	741605.66	
13900.00	90.00	0.00	10760.00	3178.67	-691.66	3178.67	0.00	428366.29	741605.66	
14000.00	90.00	0.00	10760.00	3278.67	-691.66	3278.67	0.00	428466.29	741605.66	
14100.00	90.00	0.00	10760.00	3378.67	-691.66	3378.67	0.00	428566.29	741605.66	
14200.00	90.00	0.00	10760.00	3478.67	-691.66	3478.67	0.00	428666.29	741605.66	
14300.00	90.00	0.00	10760.00	3578.67	-691.66	3578.67	0.00	428766.29	741605.66	
14400.00	90.00	0.00	10760.00	3678.67	-691.66	3678.67	0.00	428866.29	741605.66	
14500.00	90.00	0.00	10760.00	3778.67	-691.66	3778.67	0.00	428966.29	741605.66	
14600.00	90.00	0.00	10760.00	3878.67	-691.66	3878.67	0.00	429066.29	741605.66	
14700.00	90.00	0.00	10760.00	3978.67	-691.66	3978.67	0.00	429166.29	741605.66	
14800.00	90.00	0.00	10760.00	4078.67	-691.66	4078.67	0.00	429266.29	741605.66	
14900.00	90.00	0.00	10760.00	4178.67	-691.66	4178.67	0.00	429366.29	741605.66	
15000.00	90.00	0.00	10760.00	4278.67	-691.66	4278.67	0.00	429466.29	741605.66	
15100.00	90.00	0.00	10760.00	4378.67	-691.66	4378.67	0.00	429566.29	741605.66	
15200.00	90.00	0.00	10760.00	4478.67	-691.66	4478.67	0.00	429666.29	741605.66	
15300.00	90.00	0.00	10760.00	4578.67	-691.66	4578.67	0.00	429766.29	741605.66	
15400.00	90.00	0.00	10760.00	4678.67	-691.66	4678.67	0.00	429866.29	741605.66	
15468.36	90.00	0.00	10760.00	4747.03	-691.66	4747.03	0.00	429934.65	741605.66	PBHL 1H

5D Anti-Collision Report

Devon Energy

Field Name: *Lea Co, NM Nad 83 NMEZ*

Site Name: *Paint 33 Fed 2H*

Well Name: *Paint 33 Fed 2H*

04 September 2014



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Paint 33 Fed 2H

Field Name Lea Co, NM Nad 83 NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Paint 33 Fed 2H	Units : US ft	North Reference : Grid	Convergence Angle : 0.35	
	Position	Northing : 425194.55 US ft	Latitude : 32° 10' 2.14"	
		Easting : 742962.07 US ft	Longitude : -103° 40' 54.22"	
	Elevation above Mean Sea Level: 3493.00 US ft			
Comment :				
Slot Name Paint 33 Fed 2H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 425194.55 US ft	Latitude : 32°10'2.14"	
	+E / -W : 0.00 US ft	Easting : 742962.07 US ft	Longitude : -103°40'54.22"	
	Slot TVD Reference : Ground Elevation			
	Elevation above Mean Sea Level : 3493.00 US ft			
	Comment :			
Well Name Paint 33 Fed 2H	Type : Main well		UWI :	Plan : Working Plan
	Rig Height : Kelly Bushing : 25.00 US ft		Comment :	
	Relative to Mean Sea Level: 3518.00 US ft			
	Closure Distance : 4755.9 US ft		Closure Azimuth : 359.557°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 359.56°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48204.3nT	Dec : 7.38°	Dip : 60.02°
			Date : 30/Nov/2014	

Collision / Uncertainty Analysis

Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std. Deviations in Error Computation
Paint 33 Fed 2H (p)	0.00	15435.42	100.00	2

Secondary Well Names

Cotton Draw 33 Fed 2H (p)

Anti-Collision Report Terminology

S.Minor, S.Major : Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.
PHI : Angle between high-side vector and semi-minor axis
TVD Spread : Total TVD range of the ellipsoid of uncertainty at the current location
ES : Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr
T.Face to Sec : Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells

Separation factors calculated using Pedal Curve (Independent Uncertainty), Well path created using minimum curvature.

5D Anti-Collision Report

Anti-Collision Proximity Summary (TVD relative to Kelly Bushing)

Secondary Well Name	Rt MD (US ft)	Sec MD (US ft)	TVD (US ft)	GC (US ft)	ES (US ft)	SP	Risk
Cotton Draw 33 Fed 2H (p)	8696.48	13208.84	8695.25	164.54	122.34	3.90	

Primary Well: Paint 33 Fed 2H (p) (TVD Relative to Kelly Bushing, All Azimuth Relative to GRID NORTH)

MD (US ft)	TVD (US ft)	T Face to Sec (°)	S Major (US ft)	S Minor (US ft)	Nearest Well	GC (US ft)	ES (US ft)	SP	Risk
0.00	0.00	351.95	0.00	0.00	Cotton Draw 33 Fed 2H (p)	4798.77	4798.05	6638.28	
100.00	100.00	351.95	0.11	0.11	Cotton Draw 33 Fed 2H (p)	4796.10	4795.26	5715.39	
200.00	200.00	351.95	0.34	0.34	Cotton Draw 33 Fed 2H (p)	4795.47	4794.36	4326.28	
300.00	300.00	351.95	0.56	0.56	Cotton Draw 33 Fed 2H (p)	4795.47	4794.00	3268.89	
400.00	400.00	351.95	0.79	0.79	Cotton Draw 33 Fed 2H (p)	4795.47	4793.56	2520.61	
500.00	500.00	351.95	1.01	1.01	Cotton Draw 33 Fed 2H (p)	4795.47	4793.12	2042.53	
600.00	600.00	351.95	1.24	1.24	Cotton Draw 33 Fed 2H (p)	4795.47	4792.67	1715.58	
700.00	700.00	351.95	1.46	1.46	Cotton Draw 33 Fed 2H (p)	4795.47	4792.22	1478.50	
800.00	800.00	351.95	1.69	1.69	Cotton Draw 33 Fed 2H (p)	4795.47	4791.77	1298.86	
900.00	900.00	351.95	1.91	1.91	Cotton Draw 33 Fed 2H (p)	4795.47	4791.32	1158.08	
1000.00	1000.00	351.95	2.14	2.14	Cotton Draw 33 Fed 2H (p)	4795.47	4790.88	1044.80	
1100.00	1100.00	351.95	2.36	2.36	Cotton Draw 33 Fed 2H (p)	4795.47	4790.43	951.70	
1200.00	1200.00	351.95	2.59	2.59	Cotton Draw 33 Fed 2H (p)	4795.47	4789.98	873.82	
1300.00	1300.00	351.95	2.81	2.81	Cotton Draw 33 Fed 2H (p)	4795.47	4789.53	807.72	
1400.00	1400.00	351.95	3.03	3.03	Cotton Draw 33 Fed 2H (p)	4795.47	4789.08	750.91	
1500.00	1500.00	351.95	3.26	3.26	Cotton Draw 33 Fed 2H (p)	4795.47	4788.63	701.56	
1600.00	1600.00	351.95	3.48	3.48	Cotton Draw 33 Fed 2H (p)	4795.47	4788.18	658.30	
1700.00	1700.00	351.95	3.71	3.71	Cotton Draw 33 Fed 2H (p)	4795.47	4787.73	620.06	
1800.00	1800.00	351.95	3.93	3.93	Cotton Draw 33 Fed 2H (p)	4795.47	4787.28	586.02	
1900.00	1900.00	351.95	4.16	4.16	Cotton Draw 33 Fed 2H (p)	4795.47	4786.83	555.53	
2000.00	2000.00	351.95	4.38	4.38	Cotton Draw 33 Fed 2H (p)	4795.47	4786.38	528.05	
2100.00	2100.00	351.95	4.61	4.61	Cotton Draw 33 Fed 2H (p)	4795.47	4785.93	503.16	
2200.00	2200.00	351.95	4.83	4.83	Cotton Draw 33 Fed 2H (p)	4795.47	4785.49	480.51	
2300.00	2300.00	351.95	5.06	5.06	Cotton Draw 33 Fed 2H (p)	4795.47	4785.04	459.81	
2400.00	2400.00	351.95	5.28	5.28	Cotton Draw 33 Fed 2H (p)	4795.47	4784.59	440.82	
2500.00	2500.00	351.95	5.51	5.51	Cotton Draw 33 Fed 2H (p)	4795.47	4784.14	423.33	
2600.00	2600.00	351.95	5.73	5.73	Cotton Draw 33 Fed 2H (p)	4795.47	4783.69	407.18	
2700.00	2700.00	351.95	5.96	5.96	Cotton Draw 33 Fed 2H (p)	4795.47	4783.24	392.22	
2800.00	2800.00	351.95	6.18	6.18	Cotton Draw 33 Fed 2H (p)	4795.47	4782.79	378.32	
2900.00	2900.00	351.95	6.41	6.41	Cotton Draw 33 Fed 2H (p)	4795.47	4782.34	365.37	
3000.00	3000.00	351.95	6.63	6.63	Cotton Draw 33 Fed 2H (p)	4795.47	4781.89	353.28	
3100.00	3100.00	351.95	6.86	6.86	Cotton Draw 33 Fed 2H (p)	4795.47	4781.44	341.96	

SD Anti-Collision Report

Primary Well: Paint 33 Fed 2H (p) (TVD Relative to Kelly Bushing; All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	T-Trace to Set (°)	S-Major (US ft)	S-Minor (US ft)	Nearest Well	OC (US ft)	ES (US ft)	SS	T-Rel
3200.00	3200.00	351.95	7.08	7.08	Cotton Draw 33 Fed 2H (p)	4795.47	4780.99	331.34	
3300.00	3300.00	351.95	7.31	7.31	Cotton Draw 33 Fed 2H (p)	4795.47	4780.54	321.37	
3400.00	3400.00	351.95	7.53	7.53	Cotton Draw 33 Fed 2H (p)	4795.47	4780.09	311.97	
3500.00	3500.00	351.95	7.76	7.76	Cotton Draw 33 Fed 2H (p)	4795.47	4779.64	303.11	
3600.00	3600.00	351.95	7.98	7.98	Cotton Draw 33 Fed 2H (p)	4795.47	4779.20	294.74	
3700.00	3700.00	351.95	8.20	8.20	Cotton Draw 33 Fed 2H (p)	4795.47	4778.75	286.82	
3800.00	3800.00	351.95	8.43	8.43	Cotton Draw 33 Fed 2H (p)	4795.47	4778.30	279.32	
3900.00	3900.00	351.95	8.65	8.65	Cotton Draw 33 Fed 2H (p)	4795.47	4777.85	272.19	
4000.00	4000.00	359.69	8.88	8.88	Cotton Draw 33 Fed 2H (p)	4704.81	4661.84	109.50	
4100.00	4100.00	359.69	9.10	9.10	Cotton Draw 33 Fed 2H (p)	4604.85	4561.78	106.92	
4200.00	4200.00	359.69	9.33	9.33	Cotton Draw 33 Fed 2H (p)	4504.89	4461.72	104.35	
4300.00	4300.00	359.69	9.55	9.55	Cotton Draw 33 Fed 2H (p)	4404.93	4361.66	101.78	
4400.00	4400.00	359.69	9.78	9.78	Cotton Draw 33 Fed 2H (p)	4304.98	4261.59	99.23	
4500.00	4500.00	359.69	10.00	10.00	Cotton Draw 33 Fed 2H (p)	4205.02	4161.53	96.69	
4600.00	4600.00	359.69	10.23	10.23	Cotton Draw 33 Fed 2H (p)	4105.07	4061.47	94.15	
4700.00	4700.00	359.69	10.45	10.45	Cotton Draw 33 Fed 2H (p)	4005.13	3961.41	91.62	
4800.00	4800.00	359.69	10.68	10.68	Cotton Draw 33 Fed 2H (p)	3905.18	3861.35	89.11	
4900.00	4900.00	359.69	10.90	10.90	Cotton Draw 33 Fed 2H (p)	3805.24	3761.30	86.60	
5000.00	5000.00	359.69	11.13	11.13	Cotton Draw 33 Fed 2H (p)	3705.30	3661.24	84.11	
5100.00	5100.00	359.69	11.35	11.35	Cotton Draw 33 Fed 2H (p)	3605.36	3561.19	81.62	
5200.00	5200.00	359.69	11.58	11.58	Cotton Draw 33 Fed 2H (p)	3505.43	3461.14	79.14	
5300.00	5300.00	359.69	11.80	11.80	Cotton Draw 33 Fed 2H (p)	3405.50	3361.09	76.68	
5400.00	5400.00	359.69	12.03	12.03	Cotton Draw 33 Fed 2H (p)	3305.58	3261.04	74.22	
5500.00	5500.00	359.69	12.25	12.25	Cotton Draw 33 Fed 2H (p)	3205.66	3161.00	71.78	
5600.00	5600.00	359.69	12.48	12.48	Cotton Draw 33 Fed 2H (p)	3105.74	3060.96	69.35	
5700.00	5700.00	359.69	12.70	12.70	Cotton Draw 33 Fed 2H (p)	3005.83	2960.92	66.93	
5800.00	5800.00	359.69	12.93	12.93	Cotton Draw 33 Fed 2H (p)	2905.93	2860.89	64.52	
5900.00	5900.00	359.69	13.15	13.15	Cotton Draw 33 Fed 2H (p)	2806.03	2760.86	62.12	
6000.00	6000.00	359.69	13.37	13.37	Cotton Draw 33 Fed 2H (p)	2706.15	2660.84	59.73	
6100.00	6100.00	359.69	13.60	13.60	Cotton Draw 33 Fed 2H (p)	2606.27	2560.83	57.35	
6200.00	6200.00	359.69	13.82	13.82	Cotton Draw 33 Fed 2H (p)	2506.40	2460.82	54.99	
6300.00	6300.00	359.69	14.05	14.05	Cotton Draw 33 Fed 2H (p)	2406.54	2360.82	52.63	
6400.00	6400.00	359.69	14.27	14.27	Cotton Draw 33 Fed 2H (p)	2306.69	2260.83	50.29	
6500.00	6500.00	359.69	14.50	14.50	Cotton Draw 33 Fed 2H (p)	2206.86	2160.85	47.96	
6600.00	6600.00	359.69	14.72	14.72	Cotton Draw 33 Fed 2H (p)	2107.04	2060.88	45.65	
6700.00	6700.00	359.69	14.95	14.95	Cotton Draw 33 Fed 2H (p)	2007.24	1960.94	43.34	

SD Anti-Collision Report

Primary Well : Point 23 Fed 2H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)								
MD (US ft)	TVD (US ft)	T-Base to Sec (°)	S-Major (US ft)	S-Minor (US ft)	Nearest Well	GC (US ft)	GS (US ft)	Offset (US ft)
6800.00	6800.00	359.69	15.17	15.17	Cotton Draw 33 Fed 2H (p)	1907.47	1861.01	41.06
6900.00	6900.00	359.69	15.40	15.40	Cotton Draw 33 Fed 2H (p)	1807.71	1761.10	38.78
7000.00	7000.00	359.69	15.62	15.62	Cotton Draw 33 Fed 2H (p)	1707.99	1661.23	36.53
7100.00	7100.00	359.69	15.85	15.85	Cotton Draw 33 Fed 2H (p)	1608.30	1561.39	34.28
7200.00	7200.00	359.69	16.07	16.07	Cotton Draw 33 Fed 2H (p)	1508.65	1461.59	32.05
7300.00	7300.00	359.69	16.30	16.30	Cotton Draw 33 Fed 2H (p)	1409.05	1361.84	29.84
7400.00	7400.00	359.69	16.52	16.52	Cotton Draw 33 Fed 2H (p)	1309.52	1262.15	27.65
7500.00	7500.00	359.69	16.75	16.75	Cotton Draw 33 Fed 2H (p)	1210.05	1162.54	25.47
7600.00	7600.00	359.69	16.97	16.97	Cotton Draw 33 Fed 2H (p)	1110.69	1063.01	23.29
7700.00	7700.00	359.69	17.20	17.20	Cotton Draw 33 Fed 2H (p)	1011.45	963.60	21.14
7800.00	7800.00	359.69	17.42	17.42	Cotton Draw 33 Fed 2H (p)	912.38	864.37	19.00
7900.00	7900.00	359.69	17.65	17.65	Cotton Draw 33 Fed 2H (p)	813.53	765.37	16.89
8000.00	8000.00	359.69	17.87	17.87	Cotton Draw 33 Fed 2H (p)	715.00	666.67	14.79
8100.00	8100.00	180.13	18.09	18.09	Cotton Draw 33 Fed 2H (p)	616.97	568.49	12.73
8200.00	8199.99	180.12	18.25	18.25	Cotton Draw 33 Fed 2H (p)	520.01	471.48	10.72
8300.00	8299.94	180.11	18.42	18.41	Cotton Draw 33 Fed 2H (p)	425.06	376.60	8.77
8400.00	8399.82	180.11	18.59	18.56	Cotton Draw 33 Fed 2H (p)	333.86	285.84	6.95
8500.00	8499.60	180.10	18.75	18.71	Cotton Draw 33 Fed 2H (p)	250.59	203.42	5.31
8600.00	8599.26	180.10	18.92	18.85	Cotton Draw 33 Fed 2H (p)	186.26	141.71	4.18
8700.00	8698.75	180.10	19.10	18.99	Cotton Draw 33 Fed 2H (p)	164.80	122.55	3.90
8800.00	8798.06	180.10	19.27	19.13	Cotton Draw 33 Fed 2H (p)	200.44	154.14	4.33
8900.00	8897.31	180.10	19.45	19.30	Cotton Draw 33 Fed 2H (p)	270.83	221.82	5.53
9000.00	8996.57	180.10	19.63	19.48	Cotton Draw 33 Fed 2H (p)	355.70	305.48	7.08
9100.00	9095.82	180.10	19.82	19.65	Cotton Draw 33 Fed 2H (p)	446.87	396.06	8.79
9200.00	9195.08	180.10	20.01	19.83	Cotton Draw 33 Fed 2H (p)	541.17	489.94	10.56
9300.00	9294.33	180.10	20.20	20.01	Cotton Draw 33 Fed 2H (p)	637.21	585.60	12.35
9400.00	9393.68	180.10	20.42	20.25	Cotton Draw 33 Fed 2H (p)	734.12	682.25	14.15
9500.00	9493.21	180.09	20.66	20.51	Cotton Draw 33 Fed 2H (p)	831.39	779.32	15.97
9600.00	9592.90	180.08	20.89	20.76	Cotton Draw 33 Fed 2H (p)	928.89	876.59	17.76
9700.00	9692.71	180.08	21.13	21.01	Cotton Draw 33 Fed 2H (p)	1026.53	973.99	19.54
9800.00	9792.61	180.07	21.36	21.25	Cotton Draw 33 Fed 2H (p)	1124.24	1071.48	21.31
9900.00	9892.57	180.06	21.59	21.48	Cotton Draw 33 Fed 2H (p)	1221.98	1169.02	23.07
10000.00	9992.57	180.06	21.81	21.71	Cotton Draw 33 Fed 2H (p)	1319.72	1266.56	24.83
10100.00	10092.57	359.62	22.04	21.93	Cotton Draw 33 Fed 2H (p)	1417.59	1364.20	26.55
10200.00	10192.57	359.62	22.26	22.15	Cotton Draw 33 Fed 2H (p)	1515.74	1462.10	28.26
10300.00	10292.10	0.03	22.46	22.17	Cotton Draw 33 Fed 2H (p)	1612.24	1558.32	29.90

SD Anti-Collision Report

Primary Well : Pain33 Fed 2H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)								
MD (US ft)	TVD (US ft)	T-Face to See (°)	S-Major (US ft)	S-Minor (US ft)	Nearest Well	CG (US ft)	ES (US ft)	SF
10400.00	10388.68	0.02	22.62	21.84	Cotton Draw 33 Fed 2H (p)	1703.64	1649.47	31.45
10500.00	10479.37	0.02	22.76	21.29	Cotton Draw 33 Fed 2H (p)	1788.16	1733.80	32.90
10600.00	10561.43	0.01	22.90	20.47	Cotton Draw 33 Fed 2H (p)	1864.31	1809.85	34.23
10700.00	10632.35	0.01	23.06	19.51	Cotton Draw 33 Fed 2H (p)	1930.91	1876.27	35.34
10800.00	10689.98	0.01	23.30	18.53	Cotton Draw 33 Fed 2H (p)	1986.98	1932.26	36.31
10900.00	10732.58	359.99	23.64	17.69	Cotton Draw 33 Fed 2H (p)	2029.58	1975.36	37.43
11000.00	10758.84	359.97	24.06	17.20	Cotton Draw 33 Fed 2H (p)	2055.84	2002.16	38.30
11100.00	10767.97	359.95	24.58	17.16	Cotton Draw 33 Fed 2H (p)	2064.97	2011.84	38.87
11200.00	10768.32	359.93	25.21	17.31	Cotton Draw 33 Fed 2H (p)	2065.32	2012.73	39.27
11300.00	10768.66	359.91	25.95	17.50	Cotton Draw 33 Fed 2H (p)	2065.66	2013.58	39.66
11400.00	10769.01	359.89	26.79	17.71	Cotton Draw 33 Fed 2H (p)	2066.01	2014.41	40.04
11500.00	10769.36	359.87	27.73	17.94	Cotton Draw 33 Fed 2H (p)	2066.36	2015.22	40.40
11600.00	10769.70	359.85	28.76	18.20	Cotton Draw 33 Fed 2H (p)	2066.71	2016.00	40.75
11700.00	10770.05	359.83	29.86	18.48	Cotton Draw 33 Fed 2H (p)	2067.06	2016.76	41.09
11800.00	10770.40	359.81	31.03	18.80	Cotton Draw 33 Fed 2H (p)	2067.41	2017.45	41.38
11900.00	10770.74	359.79	32.27	19.17	Cotton Draw 33 Fed 2H (p)	2067.76	2018.12	41.65
12000.00	10771.09	359.77	33.55	19.55	Cotton Draw 33 Fed 2H (p)	2068.11	2018.76	41.91
12100.00	10771.44	359.75	34.89	19.95	Cotton Draw 33 Fed 2H (p)	2068.46	2019.39	42.16
12200.00	10771.78	359.73	36.27	20.35	Cotton Draw 33 Fed 2H (p)	2068.81	2020.01	42.40
12300.00	10772.13	359.71	37.69	20.75	Cotton Draw 33 Fed 2H (p)	2069.16	2020.64	42.65
12400.00	10772.48	359.70	39.14	21.15	Cotton Draw 33 Fed 2H (p)	2069.51	2021.25	42.89
12500.00	10772.82	359.68	40.62	21.67	Cotton Draw 33 Fed 2H (p)	2069.86	2021.76	43.03
12600.00	10773.17	359.66	42.13	22.09	Cotton Draw 33 Fed 2H (p)	2070.21	2022.35	43.26
12700.00	10773.52	359.64	43.66	22.62	Cotton Draw 33 Fed 2H (p)	2070.56	2022.82	43.38
12800.00	10773.86	359.62	45.22	23.11	Cotton Draw 33 Fed 2H (p)	2070.91	2023.33	43.52
12900.00	10774.21	359.60	46.79	23.61	Cotton Draw 33 Fed 2H (p)	2071.26	2023.79	43.63
13000.00	10774.56	359.58	48.38	24.10	Cotton Draw 33 Fed 2H (p)	2071.61	2024.25	43.74
13100.00	10774.90	359.56	49.99	24.65	Cotton Draw 33 Fed 2H (p)	2071.97	2024.66	43.80
13200.00	10775.25	359.54	51.62	25.21	Cotton Draw 33 Fed 2H (p)	2072.32	2025.04	43.83
13300.00	10775.60	359.52	53.25	25.76	Cotton Draw 33 Fed 2H (p)	2072.67	2025.47	43.91
13400.00	10775.94	359.50	54.90	26.25	Cotton Draw 33 Fed 2H (p)	2073.02	2025.90	43.99
13500.00	10776.29	359.48	56.56	26.85	Cotton Draw 33 Fed 2H (p)	2073.38	2026.22	43.97
13600.00	10776.64	359.46	58.23	27.47	Cotton Draw 33 Fed 2H (p)	2073.73	2026.53	43.94
13700.00	10776.98	359.44	59.91	28.06	Cotton Draw 33 Fed 2H (p)	2074.09	2026.87	43.93
13800.00	10777.33	359.42	61.60	28.65	Cotton Draw 33 Fed 2H (p)	2074.44	2027.20	43.91
13900.00	10777.68	359.40	63.30	29.24	Cotton Draw 33 Fed 2H (p)	2074.79	2027.52	43.89

SD Anti-Collision Report

Primary Well : Paint 33 Fed 2H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)								
MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	Nearest Well	CC (US ft)	ES (US ft)	St
14000.00	10778.02	359.38	65.00	29.83	Cotton Draw 33 Fed 2H (p)	2075.15	2027.82	43.85
14100.00	10778.37	359.36	66.71	30.43	Cotton Draw 33 Fed 2H (p)	2075.50	2028.10	43.78
14200.00	10778.72	359.34	68.43	31.02	Cotton Draw 33 Fed 2H (p)	2075.86	2028.36	43.70
14300.00	10779.06	359.32	70.15	31.62	Cotton Draw 33 Fed 2H (p)	2076.21	2028.59	43.60
14400.00	10779.41	359.30	71.88	32.23	Cotton Draw 33 Fed 2H (p)	2076.57	2028.80	43.47
14500.00	10779.76	359.28	73.61	32.84	Cotton Draw 33 Fed 2H (p)	2076.92	2028.99	43.33
14600.00	10780.10	359.26	75.34	33.46	Cotton Draw 33 Fed 2H (p)	2077.28	2029.13	43.15
14700.00	10780.45	359.24	77.09	34.10	Cotton Draw 33 Fed 2H (p)	2077.63	2029.23	42.92
14800.00	10780.80	359.23	78.83	34.75	Cotton Draw 33 Fed 2H (p)	2077.99	2029.29	42.67
14900.00	10781.14	359.21	80.58	35.40	Cotton Draw 33 Fed 2H (p)	2078.35	2029.32	42.39
15000.00	10781.49	359.19	82.33	36.06	Cotton Draw 33 Fed 2H (p)	2078.70	2029.32	42.09
15100.00	10781.84	359.17	84.09	36.72	Cotton Draw 33 Fed 2H (p)	2079.06	2029.27	41.76
15200.00	10782.18	359.15	85.84	37.38	Cotton Draw 33 Fed 2H (p)	2079.63	2029.31	41.33
15300.00	10782.53	359.15	87.61	38.04	Cotton Draw 33 Fed 2H (p)	2083.22	2032.18	40.81
15400.00	10782.88	359.14	89.37	38.71	Cotton Draw 33 Fed 2H (p)	2090.70	2038.95	40.40
15435.42	10783.00	359.13	90.00	38.94	Cotton Draw 33 Fed 2H (p)	2094.28	2042.29	40.28

Secondary Well : Cotton Draw 33 Fed 2H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)								
Pr MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	St
0.00	178.00	0.00	351.95	0.00	0.00	4798.77	4798.05	6638.28
100.00	178.00	0.00	351.95	0.00	0.00	4796.10	4795.26	5715.39
200.00	200.00	22.00	351.95	0.05	0.05	4795.47	4794.36	4326.28
300.00	300.00	122.00	351.95	0.19	0.19	4795.47	4794.00	3268.89
400.00	400.00	222.00	351.95	0.40	0.40	4795.47	4793.56	2520.61
500.00	500.00	322.00	351.95	0.62	0.62	4795.47	4793.12	2042.53
600.00	600.00	422.00	351.95	0.84	0.84	4795.47	4792.67	1715.58
700.00	700.00	522.00	351.95	1.07	1.07	4795.47	4792.22	1478.50
800.00	800.00	622.00	351.95	1.29	1.29	4795.47	4791.77	1298.86
900.00	900.00	722.00	351.95	1.51	1.51	4795.47	4791.32	1158.08
1000.00	1000.00	822.00	351.95	1.74	1.74	4795.47	4790.88	1044.80
1100.00	1100.00	922.00	351.95	1.96	1.96	4795.47	4790.43	951.70
1200.00	1200.00	1022.00	351.95	2.19	2.19	4795.47	4789.98	873.82
1300.00	1300.00	1122.00	351.95	2.41	2.41	4795.47	4789.53	807.72
1400.00	1400.00	1222.00	351.95	2.64	2.64	4795.47	4789.08	750.91
1500.00	1500.00	1322.00	351.95	2.86	2.86	4795.47	4788.63	701.56
1600.00	1600.00	1422.00	351.95	3.09	3.09	4795.47	4788.18	658.30
1700.00	1700.00	1522.00	351.95	3.31	3.31	4795.47	4787.73	620.06
1800.00	1800.00	1622.00	351.95	3.53	3.53	4795.47	4787.28	586.02
1900.00	1900.00	1722.00	351.95	3.76	3.76	4795.47	4786.83	555.53
2000.00	2000.00	1822.00	351.95	3.98	3.98	4795.47	4786.38	528.05
2100.00	2100.00	1922.00	351.95	4.21	4.21	4795.47	4785.93	503.16
2200.00	2200.00	2022.00	351.95	4.43	4.43	4795.47	4785.49	480.51
2300.00	2300.00	2122.00	351.95	4.66	4.66	4795.47	4785.04	459.81
2400.00	2400.00	2222.00	351.95	4.88	4.88	4795.47	4784.59	440.82
2500.00	2500.00	2322.00	351.95	5.11	5.11	4795.47	4784.14	423.33
2600.00	2600.00	2422.00	351.95	5.33	5.33	4795.47	4783.69	407.18
2700.00	2700.00	2522.00	351.95	5.56	5.56	4795.47	4783.24	392.22
2800.00	2800.00	2622.00	351.95	5.78	5.78	4795.47	4782.79	378.32

5D Anti-Collision Report

Secondary Well: Cotton Draw 33 Fed 2H (p) (TVD Relative to Kelly Bushing (Primary)); All Azimuth Relative to GRID NORTH									
PA MD (US ft)	TVD (US ft)	Sec MD (US ft)	True to Sec (°)	S-Major (US ft)	S-Minor (US ft)	CC (US ft)	RES (US ft)	SF	RSS
2900.00	2900.00	2722.00	351.95	6.01	6.01	4795.47	4782.34	365.37	
3000.00	3000.00	2822.00	351.95	6.23	6.23	4795.47	4781.89	353.28	
3100.00	3100.00	2922.00	351.95	6.46	6.46	4795.47	4781.44	341.96	
3200.00	3200.00	3022.00	351.95	6.68	6.68	4795.47	4780.99	331.34	
3300.00	3300.00	3122.00	351.95	6.91	6.91	4795.47	4780.54	321.37	
3400.00	3400.00	3222.00	351.95	7.13	7.13	4795.47	4780.09	311.97	
3500.00	3500.00	3322.00	351.95	7.36	7.36	4795.47	4779.64	303.11	
3600.00	3600.00	3422.00	351.95	7.58	7.58	4795.47	4779.20	294.74	
3700.00	3700.00	3522.00	351.95	7.81	7.81	4795.47	4778.75	286.82	
3800.00	3800.00	3622.00	351.95	8.03	8.03	4795.47	4778.30	279.32	
3900.00	3900.00	3722.00	351.95	8.25	8.25	4795.47	4777.85	272.19	
4000.00	8703.00	13208.84	359.69	87.14	37.29	4704.81	4661.84	109.50	
4100.00	8703.00	13208.84	359.69	87.14	37.29	4604.85	4561.78	106.92	
4200.00	8703.00	13208.84	359.69	87.14	37.29	4504.89	4461.72	104.35	
4300.00	8703.00	13208.84	359.69	87.14	37.29	4404.93	4361.66	101.78	
4400.00	8703.00	13208.84	359.69	87.14	37.29	4304.98	4261.59	99.23	
4500.00	8703.00	13208.84	359.69	87.14	37.29	4205.02	4161.53	96.69	
4600.00	8703.00	13208.84	359.69	87.14	37.29	4105.07	4061.47	94.15	
4700.00	8703.00	13208.84	359.69	87.14	37.29	4005.13	3961.41	91.62	
4800.00	8703.00	13208.84	359.69	87.14	37.29	3905.18	3861.35	89.11	
4900.00	8703.00	13208.84	359.69	87.14	37.29	3805.24	3761.30	86.60	
5000.00	8703.00	13208.84	359.69	87.14	37.29	3705.30	3661.24	84.11	
5100.00	8703.00	13208.84	359.69	87.14	37.29	3605.36	3561.19	81.62	
5200.00	8703.00	13208.84	359.69	87.14	37.29	3505.43	3461.14	79.14	
5300.00	8703.00	13208.84	359.69	87.14	37.29	3405.50	3361.09	76.68	
5400.00	8703.00	13208.84	359.69	87.14	37.29	3305.58	3261.04	74.22	
5500.00	8703.00	13208.84	359.69	87.14	37.29	3205.66	3161.00	71.78	
5600.00	8703.00	13208.84	359.69	87.14	37.29	3105.74	3060.96	69.35	
5700.00	8703.00	13208.84	359.69	87.14	37.29	3005.83	2960.92	66.93	
5800.00	8703.00	13208.84	359.69	87.14	37.29	2905.93	2860.89	64.52	
5900.00	8703.00	13208.84	359.69	87.14	37.29	2806.03	2760.86	62.12	
6000.00	8703.00	13208.84	359.69	87.14	37.29	2706.15	2660.84	59.73	
6100.00	8703.00	13208.84	359.69	87.14	37.29	2606.27	2560.83	57.35	
6200.00	8703.00	13208.84	359.69	87.14	37.29	2506.40	2460.82	54.99	
6300.00	8703.00	13208.84	359.69	87.14	37.29	2406.54	2360.82	52.63	
6400.00	8703.00	13208.84	359.69	87.14	37.29	2306.69	2260.83	50.29	
6500.00	8703.00	13208.84	359.69	87.14	37.29	2206.86	2160.85	47.96	
6600.00	8703.00	13208.84	359.69	87.14	37.29	2107.04	2060.88	45.65	
6700.00	8703.00	13208.84	359.69	87.14	37.29	2007.24	1960.94	43.34	
6800.00	8703.00	13208.84	359.69	87.14	37.29	1907.47	1861.01	41.06	
6900.00	8703.00	13208.84	359.69	87.14	37.29	1807.71	1761.10	38.78	
7000.00	8703.00	13208.84	359.69	87.14	37.29	1707.99	1661.23	36.53	
7100.00	8703.00	13208.84	359.69	87.14	37.29	1608.30	1561.39	34.28	
7200.00	8703.00	13208.84	359.69	87.14	37.29	1508.65	1461.59	32.05	
7300.00	8703.00	13208.84	359.69	87.14	37.29	1409.05	1361.84	29.84	
7400.00	8703.00	13208.84	359.69	87.14	37.29	1309.52	1262.15	27.65	
7500.00	8703.00	13208.84	359.69	87.14	37.29	1210.05	1162.54	25.47	
7600.00	8703.00	13208.84	359.69	87.14	37.29	1110.69	1063.01	23.29	
7700.00	8703.00	13208.84	359.69	87.14	37.29	1011.45	963.60	21.14	
7800.00	8703.00	13208.84	359.69	87.14	37.29	912.38	864.37	19.00	
7900.00	8703.00	13208.84	359.69	87.14	37.29	813.53	765.37	16.89	
8000.00	8703.00	13208.84	359.69	87.14	37.29	715.00	666.67	14.79	
8100.00	8703.00	13208.84	180.13	87.14	37.29	616.97	568.49	12.73	
8200.00	8703.00	13208.84	180.12	87.14	37.29	520.01	471.48	10.72	
8300.00	8703.00	13208.84	180.11	87.14	37.29	425.06	376.60	8.77	
8400.00	8703.00	13208.84	180.11	87.14	37.29	333.86	285.84	6.95	
8500.00	8703.00	13208.84	180.10	87.14	37.29	250.59	203.42	5.31	
8600.00	8703.00	13208.84	180.10	87.14	37.29	186.26	141.71	4.18	

SD Anti-Collision Report

Secondary Well : Cotton Draw 88 Feb 2H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)								
Pit MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	SIMajor (US ft)	SIMinor (US ft)	CC (US ft)	ES (US ft)	SP Risk
8700.00	8703.00	13208.84	180.10	87.14	37.29	164.80	122.55	3.90
8800.00	8703.00	13208.84	180.10	87.14	37.29	200.44	154.14	4.33
8900.00	8703.00	13208.84	180.10	87.14	37.29	270.83	221.82	5.53
9000.00	8703.00	13208.84	180.10	87.14	37.29	355.70	305.48	7.08
9100.00	8703.00	13208.84	180.10	87.14	37.29	446.87	396.06	8.79
9200.00	8703.00	13208.84	180.10	87.14	37.29	541.17	489.94	10.56
9300.00	8703.00	13208.84	180.10	87.14	37.29	637.21	585.60	12.35
9400.00	8703.00	13208.84	180.10	87.14	37.29	734.12	682.25	14.15
9500.00	8703.00	13208.84	180.09	87.14	37.29	831.39	779.32	15.97
9600.00	8703.00	13208.84	180.08	87.14	37.29	928.89	876.59	17.76
9700.00	8703.00	13208.84	180.08	87.14	37.29	1026.53	973.99	19.54
9800.00	8703.00	13208.84	180.07	87.14	37.29	1124.24	1071.48	21.31
9900.00	8703.00	13208.84	180.06	87.14	37.29	1221.98	1169.02	23.07
10000.00	8703.00	13208.84	180.06	87.14	37.29	1319.72	1266.56	24.83
10100.00	8703.00	13208.84	359.62	87.14	37.29	1417.59	1364.20	26.55
10200.00	8703.00	13208.84	359.62	87.14	37.29	1515.74	1462.10	28.26
10300.00	8703.00	13208.84	0.03	87.14	37.29	1612.24	1558.32	29.90
10400.00	8703.00	13208.84	0.02	87.14	37.29	1703.64	1649.47	31.45
10500.00	8703.00	13208.84	0.02	87.14	37.29	1788.16	1733.80	32.90
10600.00	8703.00	13208.84	0.01	87.14	37.29	1864.31	1809.85	34.23
10700.00	8703.00	13208.84	0.01	87.14	37.29	1930.91	1876.27	35.34
10800.00	8703.00	13204.95	0.01	87.07	37.26	1986.98	1932.26	36.31
10900.00	8703.00	13114.62	359.99	85.46	36.63	2029.58	1975.36	37.43
11000.00	8703.00	13018.26	359.97	83.74	35.96	2055.84	2002.16	38.30
11100.00	8703.00	12918.81	359.95	81.96	35.27	2064.97	2011.84	38.87
11200.00	8703.00	12818.81	359.93	80.18	34.58	2065.32	2012.73	39.27
11300.00	8703.00	12718.82	359.91	78.40	33.88	2065.66	2013.58	39.66
11400.00	8703.00	12618.82	359.89	76.62	33.19	2066.01	2014.41	40.04
11500.00	8703.00	12518.82	359.87	74.85	32.51	2066.36	2015.22	40.40
11600.00	8703.00	12418.83	359.85	73.08	31.82	2066.71	2016.00	40.75
11700.00	8703.00	12318.83	359.83	71.31	31.14	2067.06	2016.76	41.09
11800.00	8703.00	12218.83	359.81	69.54	30.45	2067.41	2017.45	41.38
11900.00	8703.00	12118.84	359.79	67.78	29.77	2067.76	2018.12	41.65
12000.00	8703.00	12018.84	359.77	66.02	29.09	2068.11	2018.76	41.91
12100.00	8703.00	11918.84	359.75	64.26	28.42	2068.46	2019.39	42.16
12200.00	8703.00	11818.85	359.73	62.51	27.75	2068.81	2020.01	42.40
12300.00	8703.00	11718.85	359.71	60.76	27.08	2069.16	2020.64	42.65
12400.00	8703.00	11618.85	359.70	59.02	26.41	2069.51	2021.25	42.89
12500.00	8703.00	11518.86	359.68	57.28	25.74	2069.86	2021.76	43.03
12600.00	8703.00	11418.86	359.66	55.54	25.08	2070.21	2022.35	43.26
12700.00	8703.00	11318.86	359.64	53.81	24.42	2070.56	2022.82	43.38
12800.00	8703.00	11218.86	359.62	52.09	23.76	2070.91	2023.33	43.52
12900.00	8703.00	11118.87	359.60	50.38	23.13	2071.26	2023.79	43.63
13000.00	8703.00	11018.87	359.58	48.67	22.52	2071.61	2024.25	43.74
13100.00	8703.00	10918.87	359.56	46.97	21.92	2071.97	2024.66	43.80
13200.00	8703.00	10818.88	359.54	45.33	21.32	2072.32	2025.04	43.83
13300.00	8703.00	10718.88	359.52	43.70	20.69	2072.67	2025.47	43.91
13400.00	8703.00	10618.88	359.50	42.06	20.09	2073.02	2025.90	43.99
13500.00	8703.00	10518.89	359.48	40.33	19.61	2073.38	2026.22	43.97
13600.00	8703.00	10418.89	359.46	38.89	18.94	2073.73	2026.53	43.94
13700.00	8703.00	10318.89	359.44	37.35	18.34	2074.09	2026.87	43.93
13800.00	8703.00	10218.90	359.42	35.80	17.72	2074.44	2027.20	43.91
13900.00	8703.00	10118.90	359.40	34.27	17.18	2074.79	2027.52	43.89
14000.00	8703.00	10018.90	359.38	32.75	16.67	2075.15	2027.82	43.85
14100.00	8703.00	9918.91	359.36	31.25	16.15	2075.50	2028.10	43.78
14200.00	8703.00	9818.91	359.34	29.77	15.65	2075.86	2028.36	43.70
14300.00	8703.00	9718.91	359.32	28.41	15.16	2076.21	2028.59	43.60
14400.00	8703.00	9618.91	359.30	27.12	14.70	2076.57	2028.80	43.47

5D Anti-Collision Report

Secondary Well : Cotton Draw 33 Fed 2H (P) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)									
Pr MD (US ft)	TVD (US ft)	Sec MD (US ft)	T/Face to Sec (°)	Sr Major (US ft)	Sr Minor (US ft)	GC (US ft)	ES (US ft)	SF	Risk
14500.00	8703.00	9518.92	359.28	25.85	14.26	2076.92	2028.99	43.33	
14600.00	8703.00	9418.92	359.26	24.58	13.84	2077.28	2029.13	43.15	
14700.00	8703.00	9318.92	359.24	23.51	13.45	2077.63	2029.23	42.92	
14800.00	8703.00	9218.93	359.23	22.46	13.10	2077.99	2029.29	42.67	
14900.00	8703.00	9118.93	359.21	21.56	12.78	2078.35	2029.32	42.39	
15000.00	8703.00	9018.93	359.19	20.70	12.50	2078.70	2029.32	42.09	
15100.00	8703.00	8918.94	359.17	20.00	12.25	2079.06	2029.27	41.76	
15200.00	8702.96	8845.70	359.15	19.64	12.10	2079.63	2029.31	41.33	
15300.00	8702.35	8826.89	359.15	19.53	12.05	2083.22	2032.18	40.81	
15400.00	8701.02	8808.16	359.14	19.43	12.11	2090.70	2038.95	40.40	
15435.42	8700.38	8801.56	359.13	19.42	12.14	2094.28	2042.29	40.28	

**Weatherford**

Weatherford Drilling Services

GeoDec4 v2.0.0.3

Report Date: September 04, 2014

Job Number: _____

Customer: Devon Energy

Well Name: Paint 33 Fed 2H

API Number: _____

Rig Name: _____

Location: Lea Co, NM Nad83 NME

Block: _____

Engineer: RWJ

NAD83 / New Mexico East (ftUS)

Projected Coordinate System

Datum: North American Datum 1983 (1986)

Ellipsoid: GRS 1980

EPSG: 2257

North: 425194.55 US Survey Foot

East: 742962.07 US Survey Foot

Convergence: 0.35°

Declination: 7.38°

Total Correction: 7.03°

Datum Transformation: none

NAD83 (1986)

Geodetic Coordinate System

Datum: North American Datum 1983 (1986)

Ellipsoid: GRS 1980

EPSG: 4269

Latitude: 32.16726 Degree

Longitude: -103.681727 Degree

Geodetic Location WGS84

MSL Elevation = 0 m

Latitude = 32° 10' 02.14" N

Longitude = 103° 40' 54.22" W

Magnetic Declination	=	7.38 deg	[True North Offset]	
Local Gravity	=	.9988 g	Checksum	= 6441
Local Field Strength	=	48204 nT	Magnetic Vector X	= 23888 nT
Magnetic Dip	=	60.02 deg	Magnetic Vector Y	= 3092 nT
Magnetic Model	=	bggm2014.dat	Magnetic Vector Z	= 41755 nT
Run Date	=	November 30, 2014	Magnetic Vector H	= 24087 nT

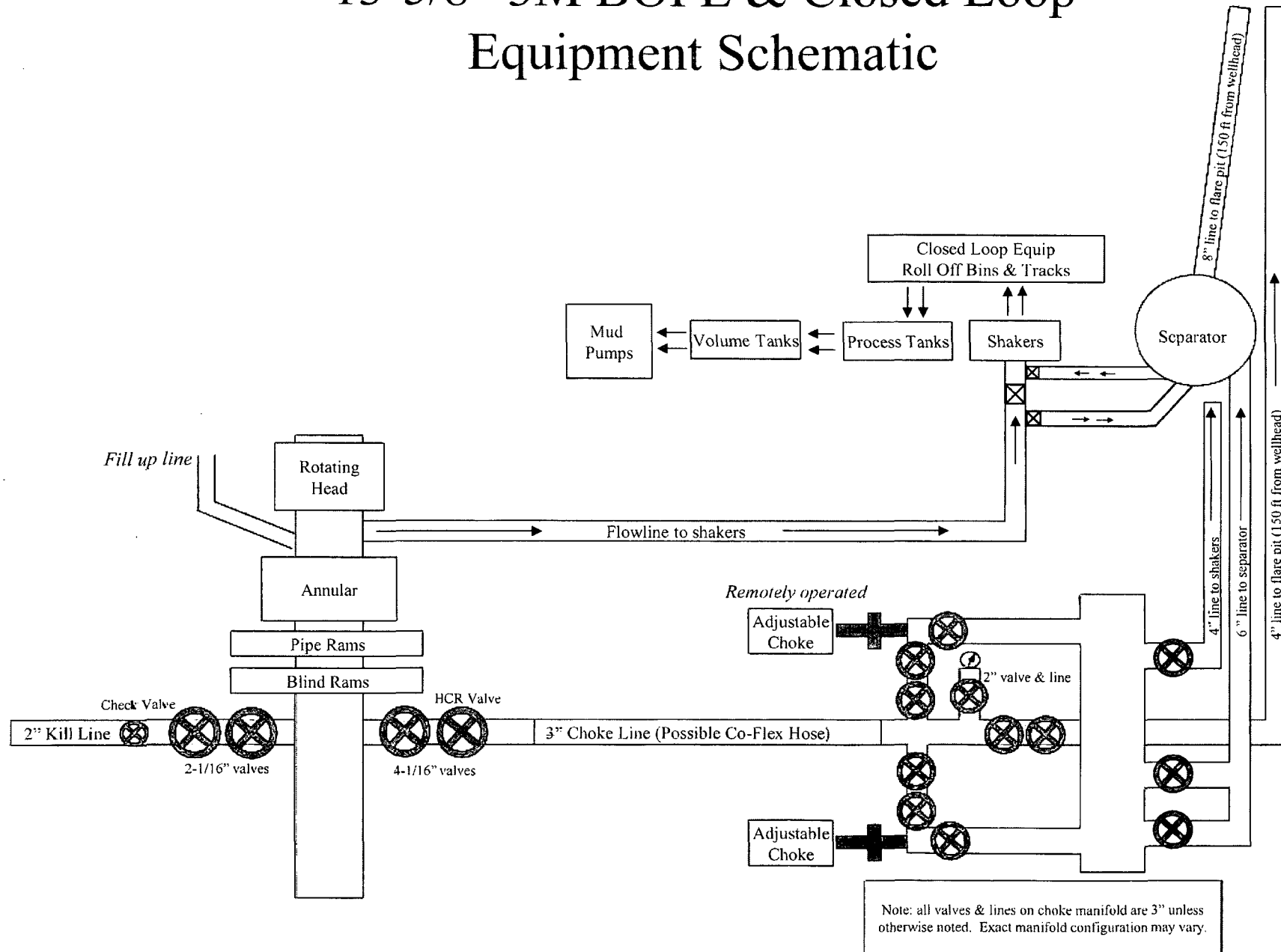
Signed: _____

Date: _____

© 2013 Weatherford

Warning: This information is controlled, and any printed version is deemed as uncontrolled unless suitably endorsed by a controlling authority or accompanied by a controlled table of contents in order to ensure adequate revision control.

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



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.

Paint 33 Fed 1H

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 filings will be in operable condition to withstand a minimum of 3000psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum of 3000psi 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.



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



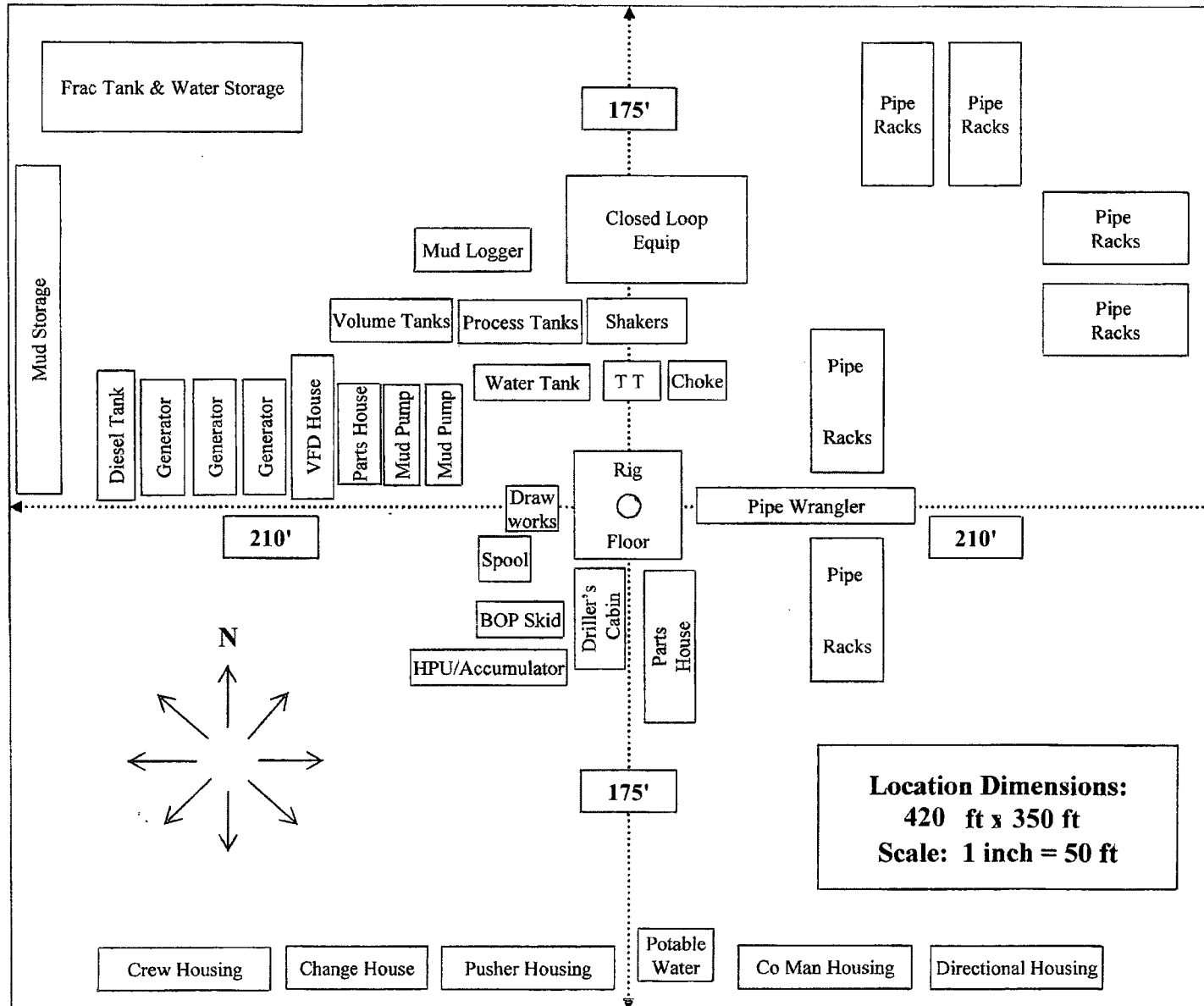


QUALITY DOCUMENT

PHOENIX RUBBER
INDUSTRIAL LTD.H-6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 162
Phone: (3662) 506-737 • Fax: (3662) 506-738SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 25
Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.turusemtege.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 4 1/16" Flange end	714 715	AISI 4130	C7626		
		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: 30. April. 2002.	Inspector	Quality Control PHOENIX RUBBER Industrial Ltd. Hose Inspection and Pressure Testing Dept.			

H&P Flex Rig Location Layout



HOBBSOCD
APR 13 2015
RECEIVED

HOBBS OCD

APR 13 2015

RECEIVED

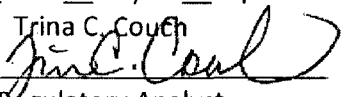
Certification

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

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

Executed this 22nd day of September 2014.

Printed Name: Trina C. Couch

Signed Name: 

Position Title: Regulatory Analyst

Address: 333 W. Sheridan, OKC OK 73102

Telephone: (405)-552-6559