

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SUNDRY NOTICES AND REPORTS ON WELLS

RECEIVED

000-HOBBS 17 2010

HOBBSOCD

FORM APPROVED
OMB NO. 1004-0135
EXPIRES: March 31, 2007

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals

SUBMIT IN TRIPLICATE

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY, LP

3. Address and Telephone No.
20 N. Broadway, Oklahoma City, Ok 73102-8260 405-235-3611

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
430 FNL 330 FWL D SEC 6 T24S R32E

PP: 430 FNL & 330' FWL

5. Lease Serial No.
NMNM77064
6. If Indian, Allottee or Tribe Name
7. Unit or CA Agreement Name and No.
8. Well Name and No.
Mesa Verde 6 Federal 10H
9. API Well No.
30-016-32751
10. Field and Pool, or Exploratory
Bone Springs
11. County or Parish State
Lea NM

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface location and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirement, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Devon Energy Production Company L. P. respectfully requests to deviate from the original Delaware Re-Entry to Bone Spring by changing the depth from 12,638' to 13,336' with the following casing/cementing program:

Casing Program

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
7-7/8"	4,440 - 8,400	5-1/2"	0 - 8,400	17#	LTC	N-80
7-7/8"	8,400 - 13336	5-1/2"	8,400 - 13,336	17#	BTC	N-80

Note: We will drill out cement plugs inside the 8-5/8" casing at surface, 620', and 2,340'. Test 8-5/8" casing to 1,500 psi for 30 minutes (as per BLM O&G Onshore Order No. 2). Drill out plugs at 4,350' and 6,400'. Tag cement plug at 8,400' and spot a kick off plug (kick off plug details are included below). The 8-5/8" casing is currently set at 4,440'.

Design Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
5-1/2" 17# N-80 LTC	1.60	1.97	1.60
5-1/2" 17# N-80 BTC	1.48	1.83	5.32

Depth	Mud Wt.	Visc.	Fluid Loss	Type System
4,440 - 13,336	8.6 - 9.0	28 - 32	NC -12	FW

(Attachments C-102, Directional Survey)

14. I hereby certify that the foregoing is true and correct

Signed [Signature]

Name Title Judy A. Bennett, X8698
Regulatory Analyst

Date 4/28/2010

(This space for Federal or State Office use)

Approved by [Signature] Title _____
Conditions of approval, if any: _____

APPROVED
MAY 14 2010
/s/ Dustin Winkler
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

*See Instruction on Reverse Side

MAY 18 2010

SUBJECT TO LIKE
APPROVAL BY STATE

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Pressure Control Equipment:

The BOP system used to drill the production hole will consist of a 11" 5M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 5M system prior to drilling out the intermediate casing shoe.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

Cementing Program

5-1/2" Production

1st Stage

Lead: 490 sacks (35:65) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% Fresh Water, 12.5 ppg **Yield:** 2.05 cf/sk

Tail: 990 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg **Yield:** 1.30 cf/sk

DV TOOL at ~5,500 ft

2nd Stage

Lead: 200 sacks (35:65) Poz (Fly Ash):Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg **Yield:** 2.89 cf/sk **TOC @ 3,940 ft**

Tail: 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg **Yield:** 1.37cf/sk

Kick Off Plug

150 sacks Class H Cement, 18.0 ppg, 0.90 cf/sk
Top of plug: 8,100'
Bottom of plug: 8,400'

:

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASEDON FLUID CALIPER AND OPENHOLE LOG CALIPER DATA.

April 28, 2010
MESA VERDE 6 FEDERAL 8H
API# 30-015-32751
Pate 3

GEOLOGY

Geologic Name of Surface formation:

Quaternary

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

a.	Fresh water		
b.	Rustler	844	
c.	Salado	1197	
d.	Base Salt	4370	
e.	Delaware/Lamar	4575	
f.	Bell Canyon	4615	
g.	Cherry Canyon	5474	Oil
h.	Brushy Canyon	6725	Oil
i.	Bone Spring	8447	Oil & Gas

Planned landing depth for horizontal is 9050' TVD:

Pool Name:	Mesa Verde
Producing Formation:	Bone Spring

Estimated : BHP: 4800psi/BHT: 145

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C
Revised 02-11

Instructions on

Submit to the Appropr
District Office
State Lease - 4 cop
Fee Lease - 3 cop

OIL CONSERVATION DIVISION

P. O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REP.

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-32151		2 Pool Code 96/91		3 Pool Name Mesa Verde Delaware			
4 Property Code 30872		5 Property Name MESA VERDE '6' FEDERAL				6 Well Number 10H	
7 OGRID No. 6137		8 Operator Name DEVON ENERGY PRODUCTION COMPANY, LP				9 Elevation 3535'	

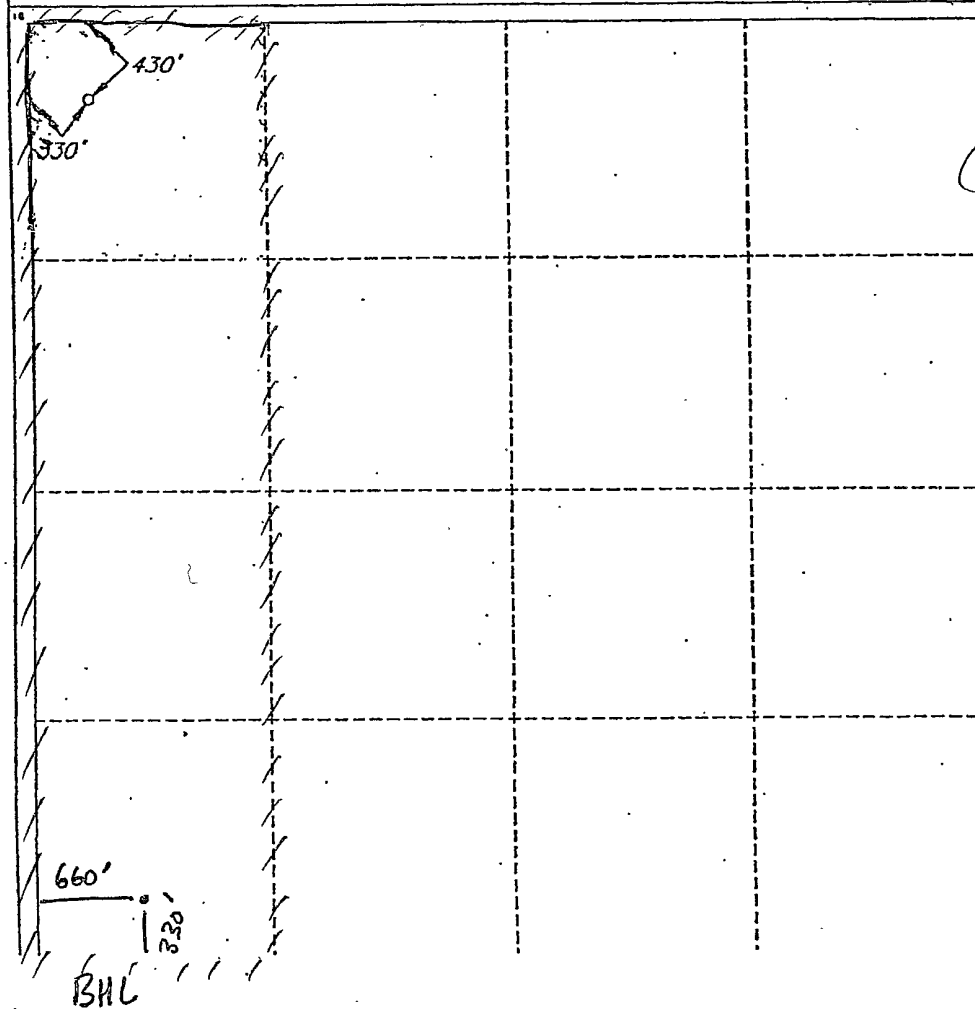
" SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	Coun
D	6	24 SOUTH	32 EAST, N.M.P.M.		430'	NORTH	330'	WEST	LEA

"BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	Coun
M	6	24S	32E		330	South	660	West	Lea
12 Dedicated Acres 160		13 Joint or Infill		14 Consolidation Code		15 Order No.			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN
CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name
Norvella Adams

Title
Sr. Staff Eng. Technician

Date
September 09, 2009

SURVEYOR CERTIFICATION

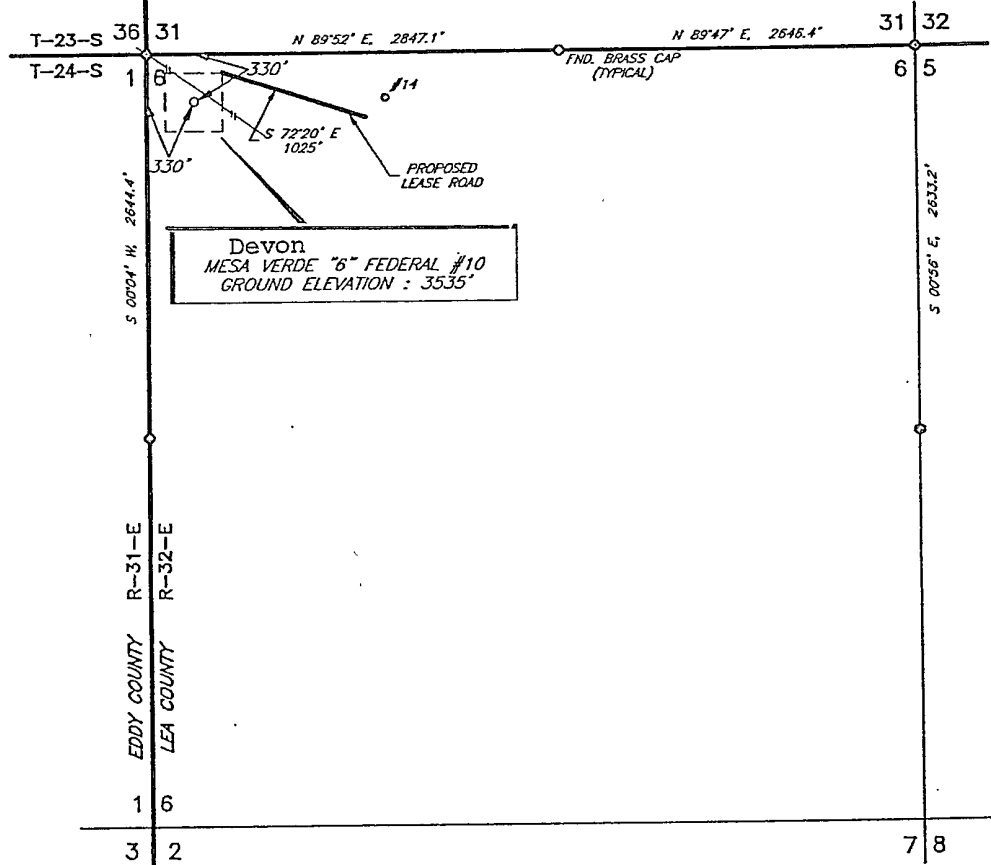
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey
NOVEMBER 11, 1997

Signature and Seal of
Professional Surveyor

Certificate No.
ROGER M. ROBBINS P.S. #121

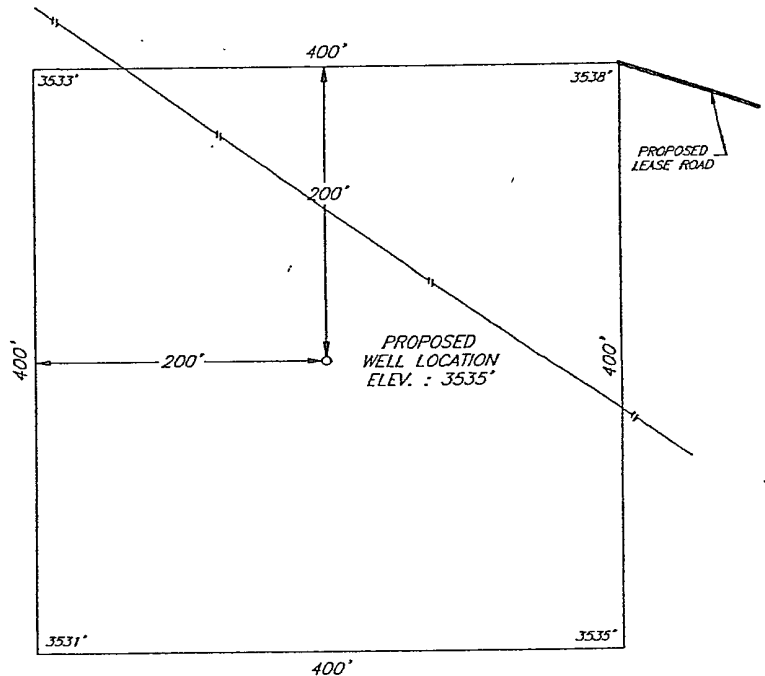
PLAT OF LOCATION
 Devon Energy Production Company, LP
 Mesa Verde "6" FEDERAL NO. 10
 330' FNL & 330' FWL
 SECTION 6, T-24-S, R-32-E
 LEA COUNTY, NEW MEXICO



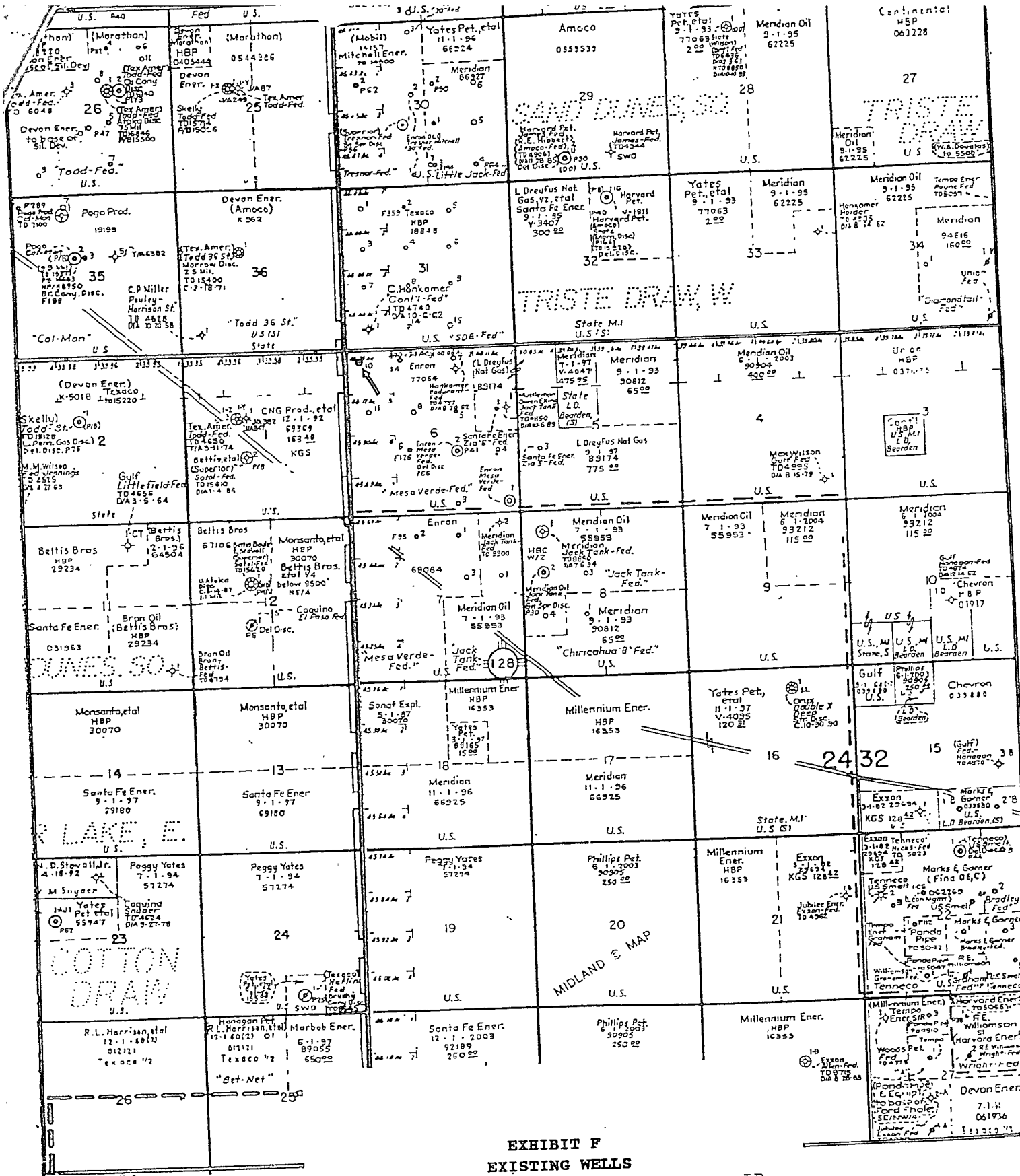
PLAN VIEW
 1" = 1000'



DETAIL VIEW
 1" = 100'



				Devon Energy Production Company, LP MIDLAND, TEXAS	SCALE: AS SHOWN
					DATE: OCTOBER 29, 1997
					JOB NO.: 54936-F
NO.	REVISION	DATE	BY	SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS	
SURVEYED BY: R.R.					47 SW
DRAWN BY: JSJ					
APPROVED BY: R.M.R.					SHEET : 1 OF 1





Weatherford®

Drilling Services

Proposal



devon

MESA VERDE 6 FED #10H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

APRIL 12, 2010

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com



Mesa Verde 6 Fed #10H
Lea Co., NM

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	175.82	0.00	0.00	0.00	0.00	0.00	0.00	
2	8477.04	0.00	175.82	8477.04	0.00	0.00	0.00	0.00	0.00	
3	9377.04	90.00	175.82	9050.00	-571.44	41.72	10.00	175.82	572.96	
4	13336.11	90.00	175.82	9050.00	-4520.00	330.00	0.00	0.00	4532.03	Pbhl

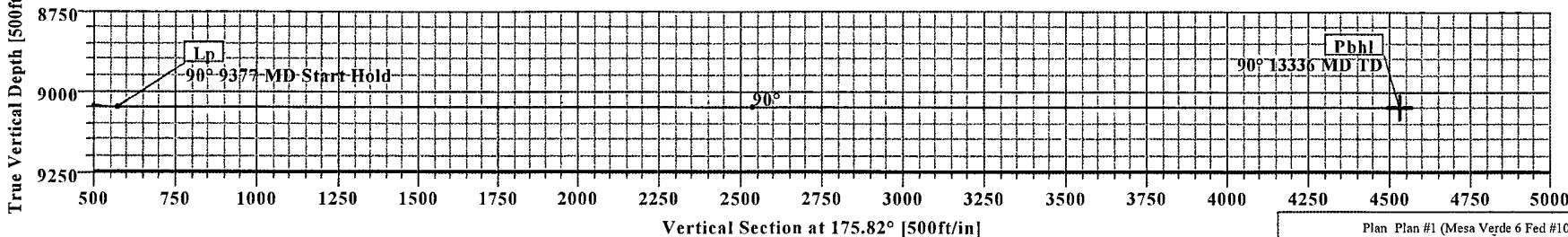
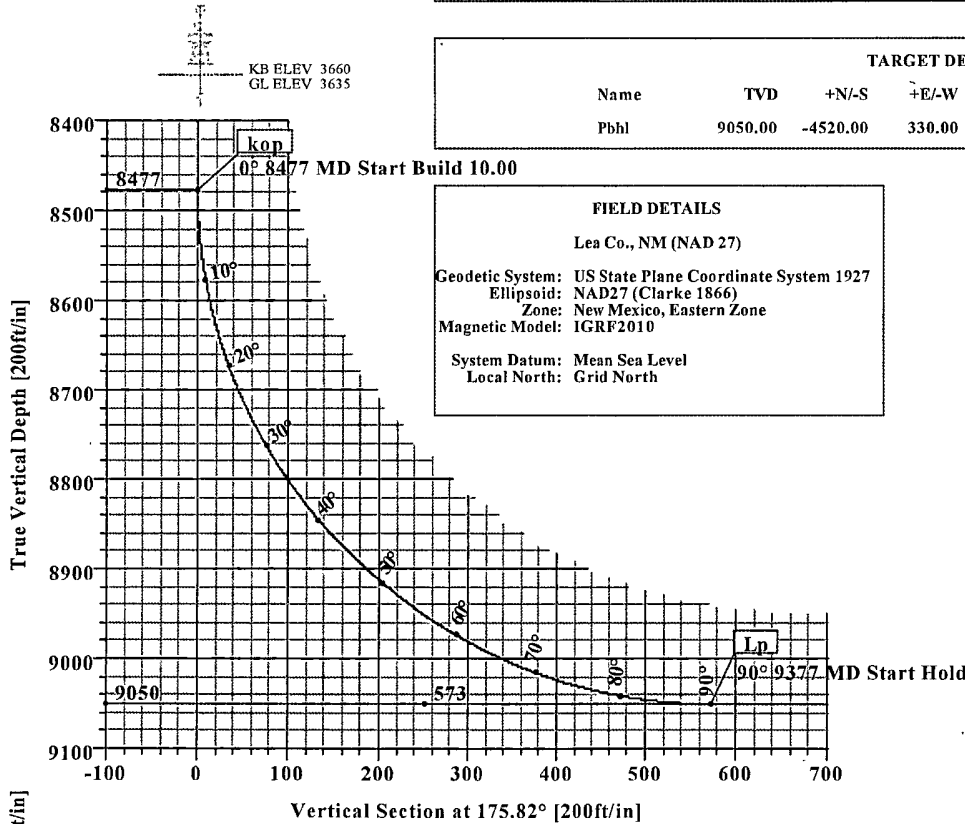
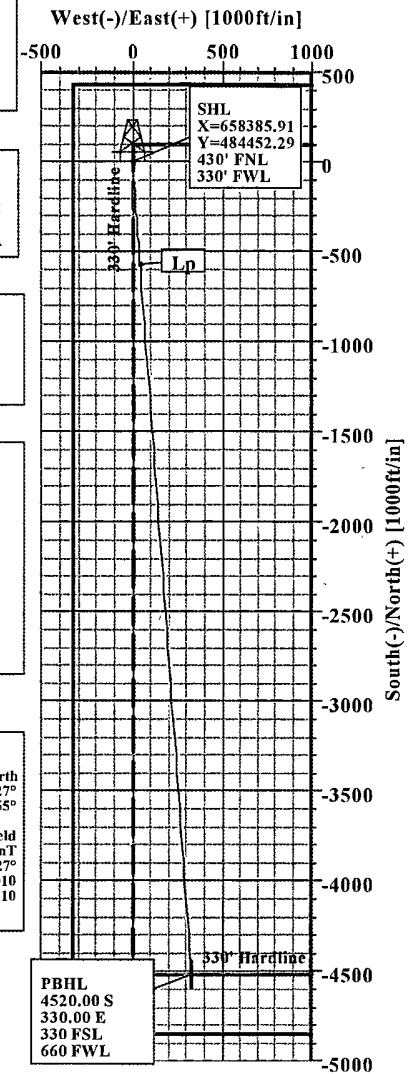
WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Mesa Verde 6 Fed #10H	0.00	0.00	484452.29	658385.91	32°19'51.000N	103°49'14.000W	N/A

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	9050.00	-4520.00	330.00	479932.29	658715.91	Point

FIELD DETAILS	
Lea Co., NM (NAD 27)	
Geodetic System:	US State Plane Coordinate System 1927
Ellipsoid:	NAD27 (Clarke 1866)
Zone:	New Mexico, Eastern Zone
Magnetic Model:	IGRF2010
System Datum:	Mean Sea Level
Local North:	Grid North

SITE DETAILS	
Mesa Verde 6 Fed #10H	
Site Centre Northing:	484452.29
Easting:	658385.91
Ground Level:	3535.00
Positional Uncertainty:	0.00
Convergence:	0.27

	Azimuths to Grid North True North: -0.27° Magnetic North: 7.55° Magnetic Field Strength: 48774nT Dip Angle: 60.27° Date: 7/1/2010 Model: IGRF2010 Total Correction to Grid North: 7.55°
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Weatherford International Ltd.

WFT Plan Report - X & Y's



Company: Devon Energy
Field: Lea Co., NM (NAD 27)
Site: Mesa Verde 6 Fed #10H
Well: Mesa Verde 6 Fed #10H
Wellpath: 1

Date: 4/12/2010
Co-ordinate(NE) Reference: Well: Mesa Verde 6 Fed #10H, Grid North
Vertical (TVD) Reference: SITE 3560.0
Section (VS) Reference: Well (0.00N,0.00E,175.82Azi)
Survey Calculation Method: Minimum Curvature
Db: Sybase

Page: 1

Field: Lea Co., NM (NAD 27)

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

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

Site: Mesa Verde 6 Fed #10H

Site Position: Northing: 484452.29 ft Latitude: 32 19 51.000 N
From: Map Easting: 658385.91 ft Longitude: 103 49 14.000 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3535.00 ft Grid Convergence: 0.27 deg

Well: Mesa Verde 6 Fed #10H

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 484452.29 ft Latitude: 32 19 51.000 N
+E/-W 0.00 ft Easting: 658385.91 ft Longitude: 103 49 14.000 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.83 deg
Mag Dip Angle: 60.27 deg
+E/-W Direction
ft deg

Current Datum: SITE
Magnetic Data: 7/1/2010
Field Strength: 48774 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft

9050.00	0.00	0.00	175.82
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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	175.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8477.04	0.00	175.82	8477.04	0.00	0.00	0.00	0.00	0.00	0.00	
9377.04	90.00	175.82	9050.00	-571.44	41.72	10.00	10.00	0.00	175.82	
13336.11	90.00	175.82	9050.00	-4520.00	330.00	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
8400.00	0.00	175.82	8400.00	0.00	0.00	0.00	0.00	484452.29	658385.91	
8477.04	0.00	175.82	8477.04	0.00	0.00	0.00	0.00	484452.29	658385.91	kop
8500.00	2.30	175.82	8499.99	-0.46	0.03	0.46	10.00	484451.83	658385.94	
8600.00	12.30	175.82	8599.06	-13.11	0.96	13.14	10.00	484439.18	658386.87	
8700.00	22.30	175.82	8694.42	-42.72	3.12	42.84	10.00	484409.57	658389.03	
8800.00	32.30	175.82	8783.17	-88.40	6.45	88.64	10.00	484363.89	658392.36	
8900.00	42.30	175.82	8862.62	-148.76	10.86	149.15	10.00	484303.53	658396.77	
9000.00	52.30	175.82	8930.35	-221.95	16.20	222.55	10.00	484230.34	658402.11	
9100.00	62.30	175.82	8984.32	-305.77	22.32	306.59	10.00	484146.52	658408.23	
9200.00	72.30	175.82	9022.86	-397.66	29.03	398.72	10.00	484054.63	658414.94	
9300.00	82.30	175.82	9044.83	-494.83	36.13	496.15	10.00	483957.46	658422.04	
9377.04	90.00	175.82	9050.00	-571.44	41.72	572.96	10.00	483880.85	658427.63	Lp
9400.00	90.00	175.82	9050.00	-594.33	43.39	595.92	0.00	483857.96	658429.30	
9500.00	90.00	175.82	9050.00	-694.07	50.67	695.92	0.00	483758.22	658436.58	
9600.00	90.00	175.82	9050.00	-793.80	57.95	795.92	0.00	483658.49	658443.86	
9700.00	90.00	175.82	9050.00	-893.54	65.24	895.92	0.00	483558.75	658451.15	
9800.00	90.00	175.82	9050.00	-993.27	72.52	995.92	0.00	483459.02	658458.43	
9900.00	90.00	175.82	9050.00	-1093.01	79.80	1095.92	0.00	483359.28	658465.71	
10000.00	90.00	175.82	9050.00	-1192.74	87.08	1195.92	0.00	483259.55	658472.99	
10100.00	90.00	175.82	9050.00	-1292.48	94.36	1295.92	0.00	483159.81	658480.27	



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Lea Co., NM (NAD 27)
Site: Mesa Verde 6 Fed #10H
Well: Mesa Verde 6 Fed #10H
Wellpath: 1

Date: 4/12/2010
Co-ordinate(NE) Reference:
Vertical (TVD) Reference:
Section (VS) Reference:
Survey Calculation Method:

Time: 09:02:25
Well: Mesa Verde 6 Fed #10H, Grid North
SITE 3560.0
Well (0.00N,0.00E,175.82Azi)
Minimum Curvature
Db: Sybase

Page: 2

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
10200.00	90.00	175.82	9050.00	-1392.21	101.64	1395.92	0.00	483060.08	658487.55	
10300.00	90.00	175.82	9050.00	-1491.94	108.93	1495.92	0.00	482960.35	658494.84	
10400.00	90.00	175.82	9050.00	-1591.68	116.21	1595.92	0.00	482860.61	658502.12	
10500.00	90.00	175.82	9050.00	-1691.41	123.49	1695.92	0.00	482760.88	658509.40	
10600.00	90.00	175.82	9050.00	-1791.15	130.77	1795.92	0.00	482661.14	658516.68	
10700.00	90.00	175.82	9050.00	-1890.88	138.05	1895.92	0.00	482561.41	658523.96	
10800.00	90.00	175.82	9050.00	-1990.62	145.33	1995.92	0.00	482461.67	658531.24	
10900.00	90.00	175.82	9050.00	-2090.35	152.61	2095.92	0.00	482361.94	658538.52	
11000.00	90.00	175.82	9050.00	-2190.09	159.90	2195.92	0.00	482262.20	658545.81	
11100.00	90.00	175.82	9050.00	-2289.82	167.18	2295.92	0.00	482162.47	658553.09	
11200.00	90.00	175.82	9050.00	-2389.56	174.46	2395.92	0.00	482062.73	658560.37	
11300.00	90.00	175.82	9050.00	-2489.29	181.74	2495.92	0.00	481963.00	658567.65	
11400.00	90.00	175.82	9050.00	-2589.02	189.02	2595.92	0.00	481863.27	658574.93	
11500.00	90.00	175.82	9050.00	-2688.76	196.30	2695.92	0.00	481763.53	658582.21	
11600.00	90.00	175.82	9050.00	-2788.49	203.58	2795.92	0.00	481663.80	658589.49	
11700.00	90.00	175.82	9050.00	-2888.23	210.87	2895.92	0.00	481564.06	658596.78	
11800.00	90.00	175.82	9050.00	-2987.96	218.15	2995.92	0.00	481464.33	658604.06	
11900.00	90.00	175.82	9050.00	-3087.70	225.43	3095.92	0.00	481364.59	658611.34	
12000.00	90.00	175.82	9050.00	-3187.43	232.71	3195.92	0.00	481264.86	658618.62	
12100.00	90.00	175.82	9050.00	-3287.17	239.99	3295.92	0.00	481165.12	658625.90	
12200.00	90.00	175.82	9050.00	-3386.90	247.27	3395.92	0.00	481065.39	658633.18	
12300.00	90.00	175.82	9050.00	-3486.64	254.56	3495.92	0.00	480965.65	658640.47	
12400.00	90.00	175.82	9050.00	-3586.37	261.84	3595.92	0.00	480865.92	658647.75	
12500.00	90.00	175.82	9050.00	-3686.10	269.12	3695.92	0.00	480766.19	658655.03	
12600.00	90.00	175.82	9050.00	-3785.84	276.40	3795.92	0.00	480666.45	658662.31	
12700.00	90.00	175.82	9050.00	-3885.57	283.68	3895.92	0.00	480566.72	658669.59	
12800.00	90.00	175.82	9050.00	-3985.31	290.96	3995.92	0.00	480466.98	658676.87	
12900.00	90.00	175.82	9050.00	-4085.04	298.24	4095.92	0.00	480367.25	658684.15	
13000.00	90.00	175.82	9050.00	-4184.78	305.53	4195.92	0.00	480267.51	658691.44	
13100.00	90.00	175.82	9050.00	-4284.51	312.81	4295.92	0.00	480167.78	658698.72	
13200.00	90.00	175.82	9050.00	-4384.25	320.09	4395.92	0.00	480068.04	658706.00	
13300.00	90.00	175.82	9050.00	-4483.98	327.37	4495.92	0.00	479968.31	658713.28	
13336.11	90.00	175.82	9050.00	-4520.00	330.00	4532.03	0.00	479932.29	658715.91	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			9050.00	-4520.00	330.00	479932.29	658715.91	32	19	6.255 N	103	49	10.407 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8477.04	8477.04	kop
9377.04	9050.00	Lp
13336.11	9050.00	Pbhl



Weatherford International Ltd.
WFT Plan Report - X & Y's



Weatherford

Company: Devon Energy	Date: 4/12/2010	Time: 09:02:25	Page: 3
Field: Lea Co., NM (NAD 27)	Co-ordinate(NE) Reference:	Well: Mesa Verde 6 Fed #10H, Grid North	
Site: Mesa Verde 6 Fed #10H	Vertical (TVD) Reference:	SITE 3560.0	
Well: Mesa Verde 6 Fed #10H	Section (VS) Reference:	Well (0.00N,0.00E,175.82Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: April 12, 2010
Job Number: _____
Customer: Devon Energy
Well Name: Mesa Verde 6 Fed #10H
API Number: _____
Rig Name: _____
Location: Lea Co., NM
Block: _____
Engineer: R Joyner

US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 484452.290 USFT	Latitude 32.3308333 DEG
East/West 658385.910 USFT	Longitude -103.8205555 DEG
Grid Convergence: .27°	
Total Correction: +7.58°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude = 32.33083° N	32° 19 min 51.000 sec	
Longitude = 103.82056° W	103° 49 min 14.000 sec	

Magnetic Declination =	7.85°	[True North Offset]	
Local Gravity =	.9988 g	Checksum =	6692
Local Field Strength =	48793 nT	Magnetic Vector X =	23969 nT
Magnetic Dip =	60.27°	Magnetic Vector Y =	3306 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z =	42371 nT
Spud Date =	Apr 12, 2010	Magnetic Vector H =	24196 nT

Signed: _____

Date: _____

Devon Energy Production Co., LP
NM-77064 – Mesa Verde 6 Federal #10H
API: 30-025-32751
Lea County, New Mexico

RE: Casing Change – Conditions of Approval

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

A CIT is to be performed on this casing per Onshore Oil and Gas Order 2.III.B.1.h prior to drilling the 8-5/8 inch shoe plug. Test pressure to be 1500 psi.

Possible brine/water flows or lost circulation in the Delaware and Bone Spring formations.

1. The 13-3/8 inch surface casing is set at **570 feet** and cemented to the surface.
2. The 8-5/8 inch intermediate casing is set at **4440 feet** with cement circulated to surface.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool, cement shall:
 - ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.
4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

DHW 050610