



A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

February 3, 2012

30-015-38433

Devon Energy Production Co., L. P.
20 North Broadway
Oklahoma City, OK 73102-8260

Attn: Mark Cooper

Re: **Cotton Draw Unit 161H**

Please find enclosed a copy of the survey from 0' to 7554' ran on the above referenced well.

If I can be of any further service please do not hesitate to call me at 800-606-4976.

Sincerely,

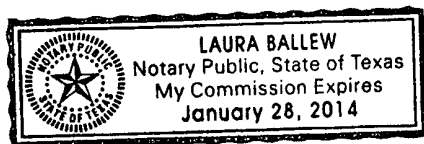

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 17th day of February, A.D., 2012, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas





Company: DEVON ENERGY PRODUCTION CO., LP

Lease/Well: COTTON DRAW UNIT/161H

Rig Name: H&P 214

State/County: NEW MEXICO/EDDY

Latitude: 32.10

GRID North is 0.47 Degrees East of True North

VS-Azi: 0.00 Degrees



RKB : 25 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: cotten draw unit #161h_ed.ut

Minimum Curvature Method

Report Date/Time: 2/3/2012 / 11:05

Vaughn Energy Services

Woodward, Oklahoma

580-254-5000

Surveyor: Nick Harding

Cotton Draw Unit 161H / AP# 30-015-38433

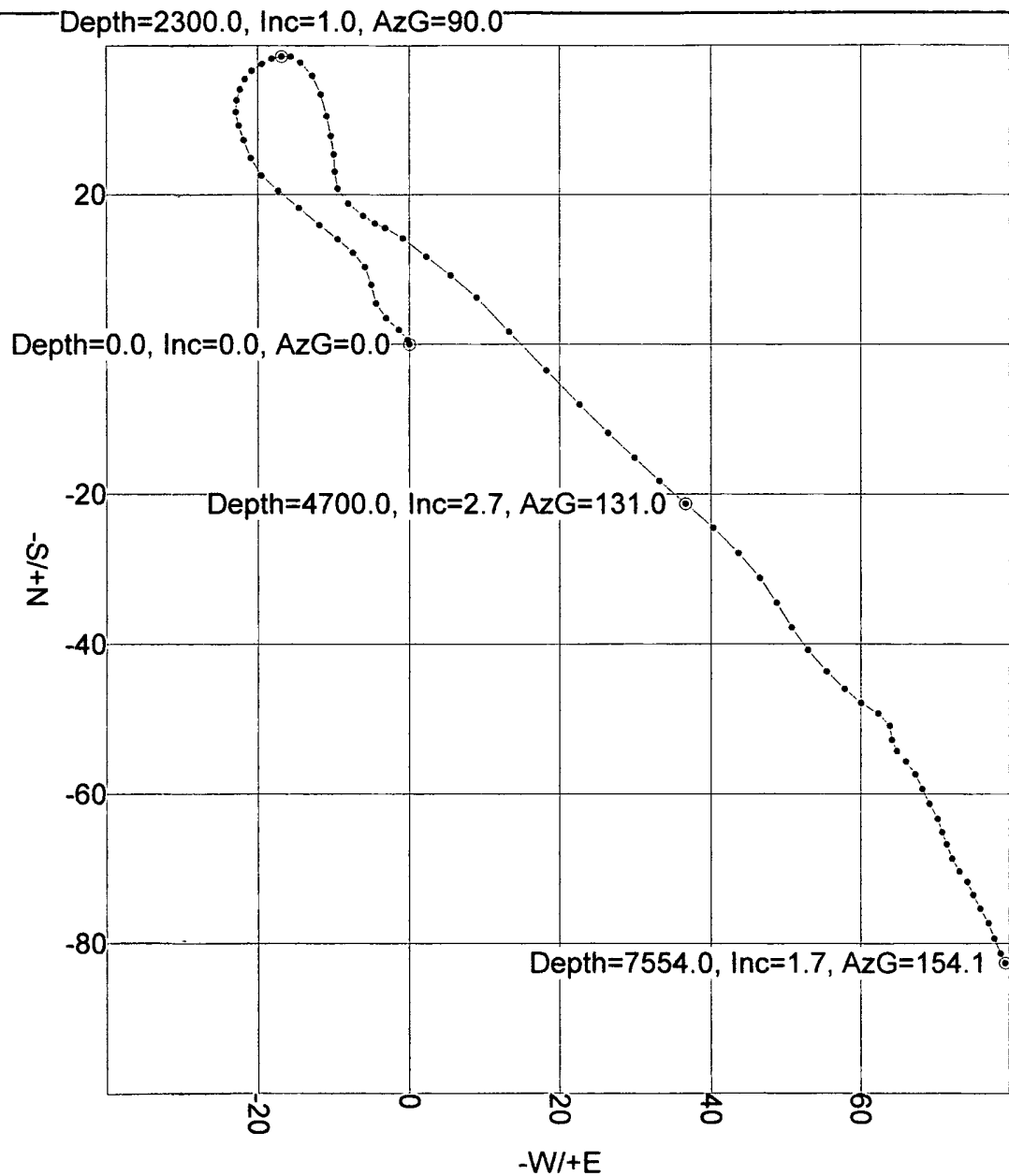
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.73	338.57	100.00	0.59	-0.23	0.59	0.63	338.57	0.73
200.00	1.34	309.58	199.98	1.93	-1.37	1.93	2.36	324.64	0.79
300.00	1.30	316.41	299.95	3.49	-3.05	3.49	4.64	318.86	0.16
400.00	1.45	334.96	399.93	5.46	-4.37	5.46	6.99	321.35	0.47
500.00	1.54	354.34	499.89	7.95	-5.04	7.95	9.41	327.64	0.51
600.00	1.41	325.44	599.86	10.30	-5.87	10.30	11.86	330.33	0.75
700.00	1.46	315.09	699.83	12.22	-7.47	12.22	14.32	328.57	0.26
800.00	1.65	308.70	799.79	14.02	-9.49	14.02	16.92	325.91	0.26
900.00	1.88	307.23	899.75	15.91	-11.91	15.91	19.87	323.17	0.23
1000.00	2.17	313.60	999.68	18.20	-14.59	18.20	23.32	321.29	0.36
1100.00	1.95	306.20	1099.62	20.51	-17.33	20.51	26.85	319.81	0.34
1200.00	1.50	320.96	1199.57	22.53	-19.52	22.53	29.81	319.09	0.63
1300.00	1.67	338.05	1299.54	24.90	-20.89	24.90	32.50	320.00	0.50
1400.00	1.27	339.29	1399.50	27.28	-21.83	27.28	34.94	321.34	0.40
1500.00	1.13	342.79	1499.48	29.25	-22.51	29.25	36.91	322.42	0.16
1600.00	1.00	356.53	1599.46	31.06	-22.85	31.06	38.56	323.66	0.29
1700.00	0.84	13.28	1699.45	32.65	-22.74	32.65	39.78	325.14	0.31
1800.00	0.89	19.06	1799.44	34.09	-22.32	34.09	40.75	326.79	0.10
1900.00	0.85	30.67	1899.43	35.47	-21.68	35.47	41.57	328.56	0.18

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
2000.00	0.83	46.92	1999.42	36.60	-20.78	36.60	42.09	330.42	0.24
2100.00	1.05	62.45	2099.40	37.52	-19.44	37.52	42.25	332.61	0.33
2200.00	0.64	56.66	2199.39	38.25	-18.16	38.25	42.34	334.60	0.41
2300.00	0.96	89.98	2299.38	38.56	-16.85	38.56	42.08	336.39	0.55
2400.00	0.46	95.03	2399.38	38.52	-15.62	38.52	41.57	337.93	0.51
2500.00	1.32	131.42	2499.36	37.73	-14.36	37.73	40.37	339.16	0.99
2600.00	1.43	146.83	2599.34	35.93	-12.82	35.93	38.14	340.36	0.38
2700.00	1.75	163.48	2699.30	33.42	-11.70	33.42	35.41	340.70	0.56
2800.00	1.70	167.06	2799.25	30.52	-10.94	30.52	32.42	340.28	0.12
2900.00	1.45	169.92	2899.22	27.83	-10.39	27.83	29.70	339.53	0.26
3000.00	1.40	171.47	2999.18	25.38	-9.99	25.38	27.27	338.52	0.06
3100.00	1.28	183.09	3099.16	23.05	-9.86	23.05	25.07	336.83	0.29
3200.00	1.42	159.23	3199.13	20.78	-9.49	20.78	22.84	335.46	0.57
3300.00	1.48	131.15	3299.10	18.77	-8.08	18.77	20.44	336.72	0.70
3400.00	1.44	127.88	3399.07	17.15	-6.11	17.15	18.21	340.38	0.09
3500.00	0.73	112.98	3499.05	16.13	-4.54	16.13	16.76	344.29	0.76
3600.00	0.98	113.46	3599.04	15.54	-3.17	15.54	15.86	348.47	0.25
3700.00	2.14	124.70	3699.00	14.14	-0.85	14.14	14.17	356.55	1.20
3800.00	2.40	131.52	3798.92	11.69	2.25	11.69	11.90	10.91	0.38
3900.00	2.28	123.75	3898.84	9.19	5.48	9.19	10.70	30.78	0.34
4000.00	2.94	135.40	3998.73	6.26	8.93	6.26	10.91	54.96	0.84
4100.00	4.26	137.41	4098.53	1.70	13.25	1.70	13.35	82.68	1.33
4200.00	3.99	135.08	4198.27	-3.50	18.21	-3.50	18.55	100.86	0.32
4300.00	3.28	136.34	4298.07	-8.03	22.64	-8.03	24.02	109.52	0.72
4400.00	2.87	133.89	4397.93	-11.83	26.42	-11.83	28.94	114.12	0.43
4500.00	2.64	133.81	4497.81	-15.16	29.89	-15.16	33.51	116.89	0.23
4600.00	2.55	131.64	4597.71	-18.23	33.21	-18.23	37.89	118.76	0.14
4700.00	2.74	131.04	4697.61	-21.27	36.67	-21.27	42.40	120.12	0.19
4800.00	2.80	131.86	4797.49	-24.47	40.29	-24.47	47.14	121.27	0.07
4900.00	2.67	139.69	4897.37	-27.88	43.61	-27.88	51.76	122.58	0.39
5000.00	2.31	139.93	4997.28	-31.19	46.42	-31.19	55.93	123.90	0.37
5100.00	2.33	150.74	5097.20	-34.51	48.71	-34.51	59.69	125.32	0.44
5200.00	2.07	146.39	5197.13	-37.79	50.70	-37.79	63.24	126.70	0.31
5300.00	2.18	142.71	5297.06	-40.81	52.86	-40.81	66.78	127.67	0.18
5400.00	2.14	135.82	5396.99	-43.66	55.31	-43.66	70.47	128.29	0.26
5500.00	1.79	128.50	5496.93	-45.98	57.84	-45.98	73.89	128.48	0.43
5600.00	1.53	133.10	5596.88	-47.86	60.03	-47.86	76.78	128.56	0.29
5700.00	1.64	110.52	5696.85	-49.27	62.34	-49.27	79.46	128.32	0.63
5800.00	1.32	169.33	5796.82	-50.90	63.89	-50.90	81.69	128.54	1.48
5900.00	0.89	173.88	5896.80	-52.80	64.19	-52.80	83.11	129.44	0.44

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Seventy Deg/100
6000.00	1.02	140.02	5996.79	-54.25	64.84	-54.25	84.55	129.92	0.57
6100.00	1.11	137.70	6096.77	-55.65	66.07	-55.65	86.39	130.11	0.10
6200.00	1.32	148.40	6196.75	-57.35	67.32	-57.35	88.44	130.43	0.31
6300.00	1.19	162.30	6296.72	-59.32	68.24	-59.32	90.42	131.00	0.33
6400.00	1.36	144.75	6396.70	-61.28	69.24	-61.28	92.46	131.51	0.42
6500.00	1.31	159.09	6496.67	-63.31	70.33	-63.31	94.63	131.99	0.34
6600.00	0.86	162.82	6596.65	-65.10	70.96	-65.10	96.30	132.53	0.45
6700.00	1.13	157.76	6696.64	-66.73	71.56	-66.73	97.84	133.00	0.28
6800.00	1.23	159.85	6796.62	-68.64	72.30	-68.64	99.70	133.51	0.11
6900.00	1.07	139.37	6896.60	-70.36	73.28	-70.36	101.59	133.84	0.44
7000.00	0.95	143.75	6996.58	-71.73	74.37	-71.73	103.33	133.96	0.14
7100.00	1.28	165.44	7096.56	-73.48	75.14	-73.48	105.10	134.36	0.53
7200.00	1.19	138.83	7196.54	-75.34	76.11	-75.34	107.09	134.71	0.57
7300.00	1.39	159.54	7296.52	-77.25	77.21	-77.25	109.22	135.01	0.50
7400.00	1.17	160.44	7396.49	-79.35	77.98	-79.35	111.25	135.50	0.21
7500.00	1.30	154.62	7496.47	-81.34	78.81	-81.34	113.26	135.91	0.18
7554.00	1.69	154.13	7550.45	-82.62	79.42	-82.62	114.60	136.13	0.72



Vaughn Energy Services
Woodward, Oklahoma
580-254-5000
Surveyor: Nick Harding
Cotton Draw Unit 161H / API# 30-015-38433



VES Survey Date: 01/18/2012



Weatherford®

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
20 North Broadway
Oklahoma City, OK, 73102

Date: January 31, 2012

Attention: Mark Cooper

Re: Devon Energy
Well: Cotton Draw Unit #161H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Jose Rivera MWD Supervisor	161H	7562' MD 12673' MD	1/18/2012 1/29/2012	Measurement While Drilling

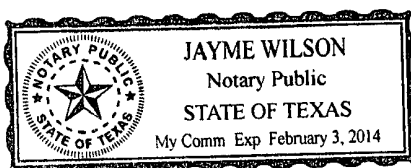
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesse Aguilar
Area Manager

On this, the 31st day of January 2012, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

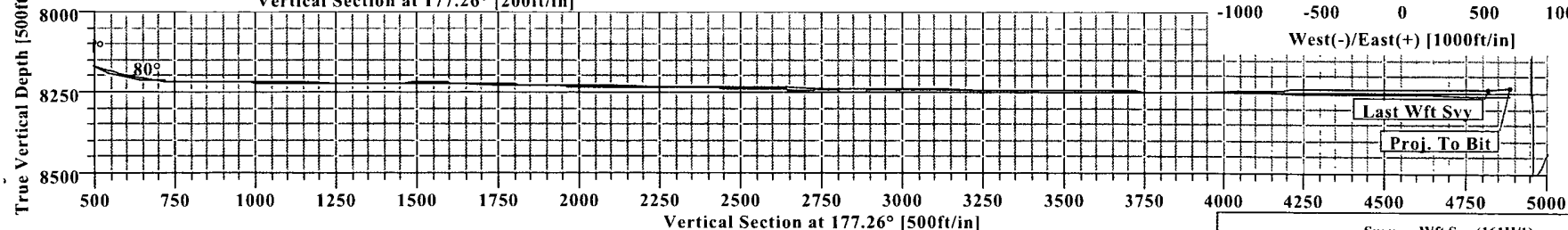
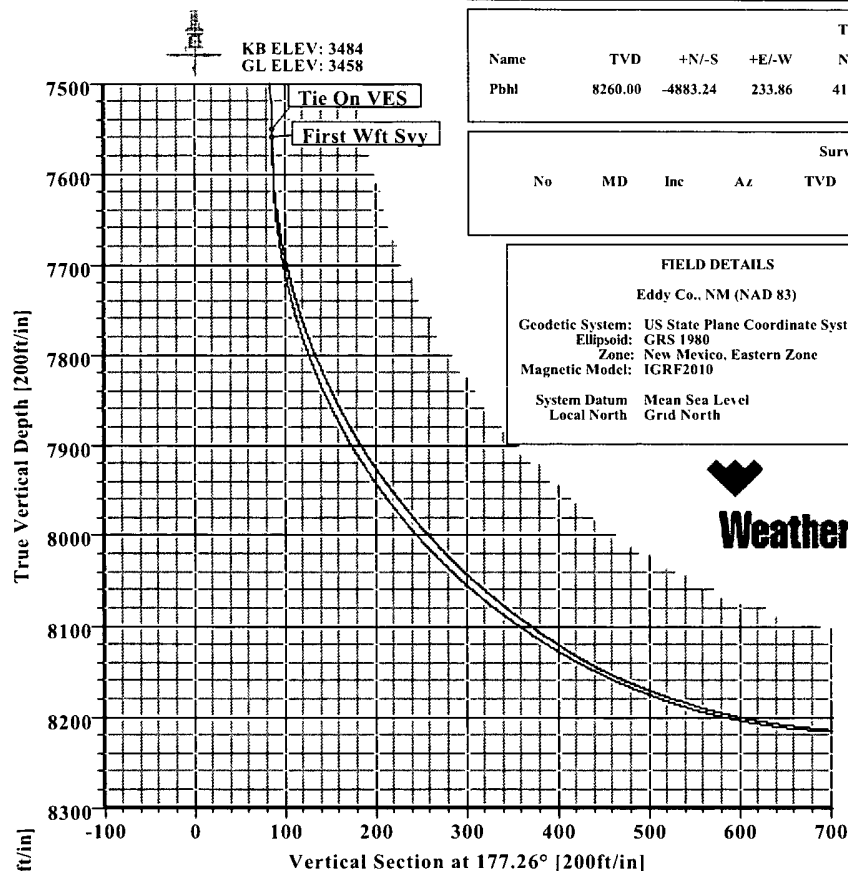
In witness hereof, I hereunto set my hand and official seal.

Notary Public





Cotton Draw #161H
Eddy Co., New Mexico



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7554.00	1.69	154.13	7550.45	-82.62	79.42	0.00	0.00	86.32	
2	7600.00	1.69	154.13	7596.43	-83.84	80.01	0.00	0.00	87.57	
3	8577.31	89.40	178.25	8216.52	-713.78	106.64	8.99	24.14	718.06	
4	12748.94	89.40	178.25	8260.00	-4883.24	233.86	0.00	0.00	4888.84	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
161H	0.00	0.00	424672.31	720057.26	32°09'58.254N	103°45'20.738W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Pbhl	8260.00	-4883.24	233.86	419789.07	720291.12	32°09'09.919N	103°45'18.322W	Point

Survey: Wft Svy (161H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
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FIELD DETAILS

Eddy Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983

Ellipsoid: GRS 1980

Zone: New Mexico, Eastern Zone

Magnetic Model: IGRF2010

System Datum: Mean Sea Level

Local North: Grid North

SITE DETAILS

Cotton Draw Unit 161H

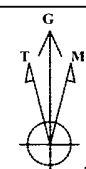
Site Centre Northing: 424672.31

Easting: 720057.26

Ground Level: 3458.00

Positional Uncertainty: 0.00

Convergence: 0.31



Azimuths to Grid North

True North: -0.31°

Magnetic North: 7.29°

Magnetic Field

Strength: 48527nT

Dip Angle: 60.09°

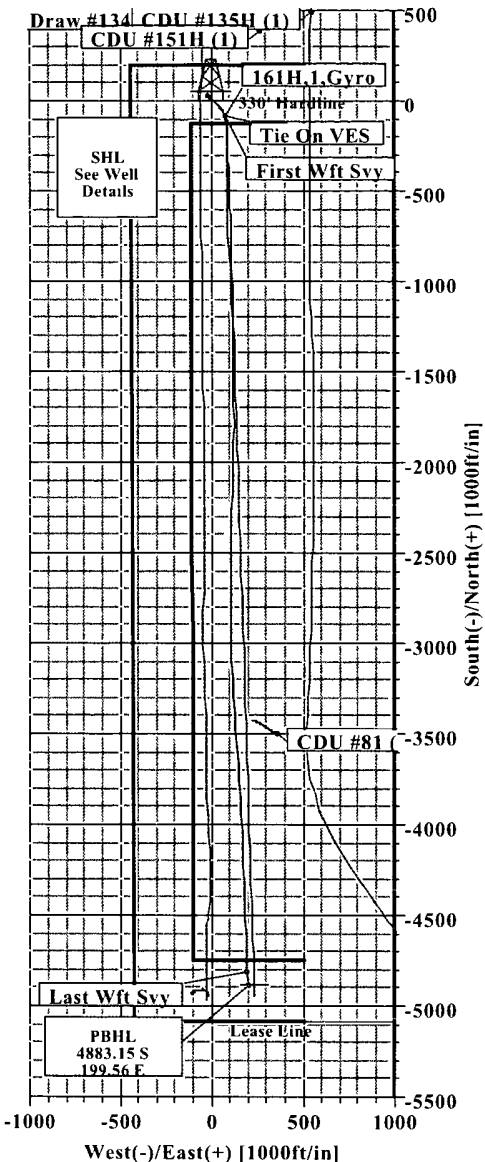
Date: 1/20/2012

Model: IGRF2010

Total Correction to Grid North: 7.29°

LEGEND

- 161H,1,Gyro
- 161H,1,Plan #4
- CDU #81 (1)
- Cotton Draw #134H (1)
- CDU #135H (1)
- CDU #151H (1)
- 1



Survey: Wft Svy (161H/1)

Created By: Russell W. Joyner

Date: 1/30/2012



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy	Date: 1/30/2012	Time: 06:22:31	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: 161H, Grid North		
Site: Cotton Draw Unit 161H	Vertical (TVD) Reference: SITE 3484.0		
Well: 161H	Section (VS) Reference: Well (0.00N,0.00E,177.26Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Wft Svy	Start Date: 1/23/2012
Company: Weatherford International Ltd	Engineer: Russell W Joyner
Tool: MWD;MWD - Standard	Tied-to: User Defined

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Cotton Draw Unit 161H

Site Position:	Northing: 424672.31 ft	Latitude: 32 9 58.254 N
From: Map	Easting: 720057.26 ft	Longitude: 103 45 20.738 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3458.00 ft		Grid Convergence: 0.31 deg

Well: 161H	Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 424672.31 ft	Latitude: 32 9 58.254 N
+E/-W 0.00 ft	Easting: 720057.26 ft	Longitude: 103 45 20.738 W
Position Uncertainty: 0.00 ft		

Wellpath: 1	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0.00 ft		
Magnetic Data: 1/20/2012	Above System Datum: Mean Sea Level		
Field Strength: 48527 nT	Declination: 7.59 deg		
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.09 deg		
ft	+N/-S	+E/-W	Direction
	ft	ft	deg
0.00	0.00	0.00	177.26

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
7554.00	1.69	154.13	7550.45	-82.62	79.42	0.00	86.32	424589.69	720136.68	Tie On VES First Wft Svy
7562.00	1.50	150.69	7558.44	-82.82	79.52	2.66	86.52	424589.49	720136.78	
7593.00	2.08	156.29	7589.43	-83.69	79.95	1.95	87.41	424588.62	720137.21	
7624.00	5.50	165.16	7620.36	-85.64	80.55	11.16	89.39	424586.67	720137.81	
7656.00	8.64	166.63	7652.11	-89.46	81.50	9.83	93.25	424582.85	720138.76	
7687.00	11.61	167.47	7682.62	-94.77	82.72	9.59	98.62	424577.54	720139.98	
7718.00	14.16	169.73	7712.84	-101.55	84.07	8.38	105.45	424570.76	720141.33	
7750.00	16.91	173.10	7743.67	-110.02	85.33	9.04	113.98	424562.29	720142.59	
7781.00	19.66	176.45	7773.10	-119.70	86.19	9.49	123.69	424552.61	720143.45	
7812.00	22.50	174.80	7802.02	-130.82	87.05	9.36	134.83	424541.49	720144.31	
7843.00	24.87	175.88	7830.41	-143.23	88.06	7.77	147.28	424529.08	720145.32	
7875.00	27.09	179.92	7859.18	-157.23	88.55	8.87	161.28	424515.08	720145.81	
7906.00	29.96	180.03	7886.41	-172.03	88.56	9.26	176.07	424500.28	720145.82	
7937.00	32.83	180.35	7912.87	-188.18	88.50	9.27	192.20	424484.13	720145.76	
7969.00	35.80	180.11	7939.30	-206.22	88.43	9.29	210.21	424466.09	720145.69	
8000.00	38.50	179.90	7964.01	-224.94	88.43	8.72	228.91	424447.37	720145.69	
8031.00	40.21	178.85	7987.97	-244.59	88.65	5.92	248.55	424427.72	720145.91	
8063.00	43.19	178.92	8011.86	-265.87	89.06	9.31	269.83	424406.44	720146.32	
8094.00	45.57	179.05	8034.02	-287.55	89.45	7.68	291.50	424384.76	720146.71	
8125.00	48.43	179.67	8055.16	-310.22	89.70	9.34	314.15	424362.09	720146.96	
8157.00	50.89	180.20	8075.87	-334.61	89.72	7.79	338.51	424337.70	720146.98	
8188.00	53.73	180.98	8094.82	-359.13	89.47	9.38	363.00	424313.18	720146.73	
8220.00	56.22	180.63	8113.19	-385.33	89.10	7.83	389.15	424286.98	720146.36	
8251.00	58.55	179.71	8129.90	-411.44	89.03	7.92	415.23	424260.87	720146.29	



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 161H
Well: 161H
Wellpath: 1

Date: 1/30/2012 Time: 06:22.31 Page: 2
Co-ordinate(NE) Reference: Well: 161H, Grid North
Vertical (TVD) Reference: SITE 3484.0
Section (VS) Reference: Well (0.00N,0.00E,177.26Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
8282.00	62.39	179.12	8145.17	-438.41	89.30	12.50	442.18	424233.90	720146.56	
8314.00	66.37	178.63	8159.01	-467.25	89.87	12.51	471.01	424205.06	720147.13	
8345.00	69.53	178.02	8170.64	-495.97	90.71	10.36	499.74	424176.34	720147.97	
8376.00	71.84	178.04	8180.90	-525.20	91.72	7.45	528.99	424147.11	720148.98	
8407.00	73.88	179.26	8190.03	-554.82	92.42	7.58	558.60	424117.49	720149.68	
8439.00	76.55	180.76	8198.20	-585.75	92.41	9.50	589.50	424086.56	720149.67	
8470.00	79.84	180.97	8204.54	-616.09	91.95	10.63	619.78	424056.22	720149.21	
8501.00	82.53	179.87	8209.29	-646.72	91.73	9.36	650.37	424025.59	720148.99	
8533.00	83.86	179.25	8213.08	-678.49	91.97	4.58	682.11	423993.82	720149.23	
8595.00	88.29	177.90	8217.32	-740.31	93.51	7.47	743.94	423932.00	720150.77	
8687.00	89.54	176.77	8219.07	-832.19	97.79	1.83	835.92	423840.12	720155.05	
8702.00	89.33	177.11	8219.21	-847.17	98.59	2.66	850.91	423825.14	720155.85	
8796.00	88.98	175.97	8220.60	-940.99	104.26	1.27	944.90	423731.32	720161.52	
8890.00	89.20	176.61	8222.09	-1034.78	110.34	0.72	1038.87	423637.53	720167.60	
8984.00	90.10	178.49	8222.67	-1128.68	114.36	2.22	1132.86	423543.63	720171.62	
9078.00	90.31	178.49	8222.33	-1222.65	116.84	0.22	1226.84	423449.66	720174.10	
9172.00	90.10	178.69	8221.99	-1316.62	119.15	0.31	1320.81	423355.69	720176.41	
9266.00	90.24	179.02	8221.72	-1410.60	121.03	0.38	1414.78	423261.71	720178.29	
9360.00	90.59	179.11	8221.03	-1504.59	122.56	0.38	1508.73	423167.72	720179.82	
9454.00	88.85	179.61	8221.49	-1598.58	123.61	1.93	1602.66	423073.73	720180.87	
9548.00	88.57	179.40	8223.61	-1692.55	124.42	0.37	1696.56	422979.76	720181.68	
9642.00	88.36	179.86	8226.13	-1786.51	125.03	0.54	1790.45	422885.85	720182.29	
9736.00	87.80	180.44	8229.28	-1880.46	124.78	0.86	1884.27	422791.80	720182.04	
9830.00	88.36	180.78	8232.43	-1974.40	123.78	0.70	1978.06	422697.91	720181.04	
9924.00	88.71	181.86	8234.83	-2068.34	121.62	1.21	2071.79	422603.97	720178.88	
10018.00	90.73	182.67	8235.29	-2162.26	117.91	2.32	2165.43	422510.05	720175.17	
10112.00	89.83	183.90	8234.83	-2256.11	112.52	1.62	2258.90	422416.20	720169.78	
10207.00	89.69	183.02	8235.23	-2350.93	106.79	0.94	2353.35	422321.38	720164.05	
10300.00	87.79	179.88	8237.27	-2443.86	104.43	3.95	2446.06	422228.45	720161.69	
10395.00	88.57	179.53	8240.29	-2538.81	104.92	0.90	2540.93	422133.50	720162.18	
10489.00	89.26	179.46	8242.07	-2632.79	105.75	0.74	2634.84	422039.52	720163.01	
10583.00	87.31	178.58	8244.88	-2726.73	107.36	2.28	2728.74	421945.58	720164.62	
10677.00	89.20	180.59	8247.75	-2820.67	108.04	2.93	2822.61	421851.64	720165.30	
10770.00	92.20	179.70	8246.61	-2913.66	107.80	3.36	2915.48	421758.65	720165.06	
10865.00	90.31	178.30	8244.53	-3008.61	109.46	2.48	3010.40	421663.70	720166.72	
10959.00	89.90	177.12	8244.36	-3102.53	113.21	1.33	3104.40	421569.78	720170.47	
11053.00	90.59	176.49	8243.96	-3196.39	118.45	0.99	3198.39	421475.92	720175.71	
11147.00	90.24	176.56	8243.27	-3290.21	124.15	0.38	3292.38	421382.10	720181.41	
11241.00	90.03	176.65	8243.05	-3384.05	129.72	0.24	3386.38	421288.26	720186.98	
11335.00	89.62	176.52	8243.34	-3477.88	135.32	0.46	3480.37	421194.43	720192.58	
11429.00	89.27	176.71	8244.25	-3571.71	140.87	0.42	3574.36	421100.60	720198.13	
11524.00	88.85	176.95	8245.81	-3666.55	146.12	0.51	3669.34	421005.76	720203.38	
11617.00	88.36	176.91	8248.07	-3759.39	151.10	0.53	3762.32	420912.92	720208.36	
11711.00	90.38	176.36	8249.11	-3853.22	156.62	2.23	3856.30	420819.09	720213.88	
11805.00	91.22	176.93	8247.79	-3947.05	162.12	1.08	3950.28	420725.26	720219.38	
11899.00	91.29	177.21	8245.74	-4040.90	166.92	0.31	4044.26	420631.41	720224.18	
11994.00	91.29	177.17	8243.60	-4135.76	171.58	0.04	4139.24	420536.55	720228.84	
12088.00	91.58	177.29	8241.24	-4229.62	176.12	0.33	4233.21	420442.69	720233.38	
12182.00	90.10	177.78	8239.86	-4323.52	180.16	1.66	4327.19	420348.79	720237.42	
12276.00	89.90	177.61	8239.86	-4417.45	183.94	0.28	4421.19	420254.86	720241.20	
12370.00	90.03	178.16	8239.92	-4511.38	187.41	0.60	4515.18	420160.93	720244.67	
12464.00	89.97	177.97	8239.92	-4605.33	190.58	0.21	4609.17	420066.98	720247.84	



Weatherford International Ltd.

WFT Survey Report X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 161H
Well: 161H
Wellpath: 1

Date: 1/30/2012
Co-ordinate(NE) Reference: Well: 161H, Grid North
Vertical (TVD) Reference: SITE 3484 0
Section (VS) Reference: Well (0.00N,0 00E,177.26Azi)
Survey Calculation Method: Minimum Curvature
Page: 3
Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
12558 00	90 66	178.04	8239.41	-4699 27	193 85	0.74	4703 16	419973 04	720251 11	
12652 00	91.08	178.16	8237.98	-4793.21	196 97	0.46	4797 14	419879.10	720254 23	
12673 00	91.08	178 38	8237 58	-4814.19	197.61	1 05	4818 14	419858 12	720254 87	Last Wft Svy
12742 00	91 08	178 38	8236.28	-4883 15	199 56	0 00	4887 11	419789 16	720256.82	Proj To Bit

Annotation

MD ft	TVD ft	
7554 00	7550.45	Tie On VES
7562 00	7558 44	First Wft Svy
12673.00	8237 58	Last Wft Svy
12742.00	8236.28	Proj. To Bit