

Reservoir Development

Drilling & Measurements (Anadrill)

4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

Fax: (405) 682-3937

PATHFINDER

A Schlumberger Company

NM OIL CONSERVATION

ARTESIA DISTRICT

15-43215

AUG 19 2016

August 14, 2015

RECEIVED

DEVON ENERGY PRODUCTION COMPANY, LP

333 W Sheridan Ave

Oklahoma City, OK 73102

Re:

CLIENT: DEVON ENERGY PRODUCTION COMPANY, LP

WELL: COTTON DRAW UNIT 240H

FIELD: PADUCA; BONE SPRING

RIG: H&P 223

COUNTY: EDDY

API NO: 30-015-43215

JOB NO: 15MI.D2152

Sec 13, T25S, R31E Eddy NM

N 32.13685 W 103.73371

Enclosed, please find the original copy of the survey performed on the referenced well by PathFinder, a division of Schlumberger Technology Corporation.

Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
ROSELEIGH TAYLOR FEI	COTTON DRAW UNIT 240H Original Hole	4351.00 Ft to 15009.00 Ft	August 1, 2015 to August 11, 2015	HDS-1L

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Qun Xu
Field Service Manager

Reservoir Development

Drilling & Measurements (Anadrill)

4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

Fax: (405) 682-3937

PATHFINDER

A Schlumberger Company

Well Reference:

Sec 13, T25S, R31E Eddy NM

N 32.13685 W 103.73371

I, ROSELEIGH TAYLOR certify that: I am employed by PathFinder, a division of Schlumberger Technology Corporation; that I did on the day(s) of August 01, 2015 through August 11, 2015, conduct or supervise the taking of the HDS-IL surveys from a depth of 4351.00 feet to a depth of 15009.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of DEVON ENERGY PRODUCTION COMPANY, LP for the COTTON DRAW UNIT 240H Well (Original Hole) API No. 30-015-43215 and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By

ROSELEIGH TAYLOR

FEI



Subscribed and Sworn to before me this 14th day of August (month) 2015 (yr)

My Commission expires:

September 5, 2016

Michelle Ellwood

Notary Public

(signature)

Midland, TX

(County State)



PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING

Rig:H&P 223

PathFinder Office Supervisor: QUN XU

PathFinder Field Engineers: ROSELEIGH TAYLOR

MAGSUD ALIYEV

DAVID MASON

Survey Calculations by RX4 using Minimum Curvature

JENNIFER NZEGWU

Page 01/07
Tie-in Date: 08/01/2015
Date Completed: 08/11/2015

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.8126445 N LON:103.44.1.3632 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 726937.8400 Y: 414036.7900
North Aligned To:GRID NORTH
Total Magnetic Correction: 6.74° EAST TO GRID
Vertical Section Plane: 179.76
Survey Vert. Reference: 25.00' Drill Floor To Ground
Altitude:3399.40' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	Rectangular Offsets (ft)	TOTAL (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
THE FOLLOWING ARE EXTREME MWD SURVEYS.										
170.00	0.22	0.00	170.00	145.00	-0.32	0.32 N	0.00 E	0.32@ 0.63	0.00	0.00
200.00	0.31	0.00	200.00	175.00	-0.46	0.46 N	0.00 E	0.46@ 0.44	0.30	0.00
263.00	0.40	243.56	263.00	238.00	-0.54	0.54 N	0.19 W	0.57@ 340.14	0.96	0.00
324.00	0.48	246.24	324.00	299.00	-0.34	0.34 N	0.62 W	0.70@ 298.64	0.14	0.00
416.00	0.80	268.44	415.99	390.99	-0.17	0.16 N	1.61 W	1.62@ 275.83	0.43	0.00
505.00	1.10	264.04	504.98	479.98	-0.07	0.06 N	3.08 W	3.08@ 271.10	0.35	0.00
596.00	1.20	263.94	595.96	570.96	0.11	0.13 S	4.90 W	4.90@ 268.45	0.11	0.00
670.00	1.19	269.05	669.94	644.94	0.20	0.23 S	6.44 W	6.44@ 267.98	0.14	0.00
759.00	1.19	122.05	758.94	733.94	0.71	0.73 S	6.58 W	6.62@ 263.65	2.56	0.00
850.00	1.10	294.76	849.93	824.93	0.84	0.87 S	6.57 W	6.63@ 262.47	2.51	0.00
942.00	1.01	288.56	941.92	916.92	0.21	0.24 S	8.14 W	8.15@ 268.31	0.16	0.00
1032.00	1.10	288.12	1031.90	1006.90	-0.32	0.28 N	9.72 W	9.72@ 271.66	0.10	0.00
1123.00	1.10	288.34	1122.88	1097.88	-0.88	0.83 N	11.37 W	11.40@ 274.16	0.01	0.00
1219.00	1.01	282.23	1218.87	1193.87	-1.35	1.30 N	13.08 W	13.14@ 275.66	0.15	0.00
1314.00	0.79	281.13	1313.86	1288.86	-1.66	1.60 N	14.54 W	14.62@ 276.28	0.23	0.00
1407.00	0.70	273.75	1406.85	1381.85	-1.83	1.76 N	15.73 W	15.83@ 276.39	0.14	0.00
1503.00	0.62	281.75	1502.84	1477.84	-1.98	1.91 N	16.83 W	16.93@ 276.46	0.13	0.00
1597.00	0.62	271.33	1596.84	1571.84	-2.10	2.02 N	17.83 W	17.95@ 276.46	0.12	0.00
1692.00	0.62	270.54	1691.83	1666.83	-2.12	2.04 N	18.86 W	18.97@ 276.17	0.01	0.00
1786.00	0.48	283.55	1785.83	1760.83	-2.22	2.13 N	19.75 W	19.87@ 276.17	0.20	0.00
1864.00	0.40	273.93	1863.82	1838.82	-2.31	2.23 N	20.34 W	20.46@ 276.26	0.14	0.00
1971.00	0.22	260.65	1970.82	1945.82	-2.31	2.22 N	20.92 W	21.03@ 276.06	0.18	0.00
2066.00	0.31	260.45	2065.82	2040.82	-2.24	2.15 N	21.35 W	21.46@ 275.75	0.09	0.00
2160.00	0.22	280.52	2159.82	2134.82	-2.23	2.14 N	21.78 W	21.88@ 275.61	0.14	0.00
2255.00	0.09	287.94	2254.82	2229.82	-2.29	2.20 N	22.03 W	22.14@ 275.69	0.14	0.00

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING
RIG:H&P 223

Page 02/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
2448.00	0.22	219.74	2447.82	2422.82	-2.05	1.96 N	22.50@ 274.99	0.11	0.00
2540.00	0.09	193.42	2539.82	2514.82	-1.85	1.75 N	22.61@ 274.45	0.16	0.00
2726.00	0.09	190.03	2725.82	2700.82	-1.56	1.47 N	22.65@ 273.71	0.00	0.00
2822.00	0.22	163.53	2821.82	2796.82	-1.31	1.22 N	22.59@ 273.08	0.15	0.00
2915.00	0.09	52.53	2914.82	2889.82	-1.18	1.09 N	22.48@ 272.78	0.29	0.00
3010.00	0.09	33.02	3009.82	2984.82	-1.29	1.20 N	22.38@ 273.06	0.03	0.00
3108.00	0.09	55.12	3107.82	3082.82	-1.40	1.31 N	22.28@ 273.36	0.03	0.00
3202.00	0.31	116.82	3201.82	3176.82	-1.32	1.23 N	21.99@ 273.21	0.30	0.00
3295.00	0.70	39.13	3294.81	3269.81	-1.65	1.56 N	21.43@ 274.17	0.76	0.00
3390.00	0.31	104.43	3389.81	3364.81	-2.03	1.95 N	20.85@ 275.35	0.67	0.00
3483.00	0.22	83.64	3482.81	3457.81	-1.99	1.90 N	20.43@ 275.35	0.14	0.00
3579.00	0.40	15.53	3578.81	3553.81	-2.33	2.25 N	20.19@ 276.39	0.39	0.00
3674.00	0.31	9.42	3673.81	3648.81	-2.90	2.82 N	20.13@ 278.05	0.10	0.00
3768.00	0.40	62.94	3767.81	3742.81	-3.30	3.22 N	19.86@ 279.33	0.35	0.00
3863.00	0.31	61.75	3862.80	3837.80	-3.57	3.49 N	19.40@ 280.37	0.09	0.00
3955.00	0.40	78.15	3954.80	3929.80	-3.75	3.68 N	18.91@ 281.21	0.15	0.00
4051.00	0.40	111.15	4050.80	4025.80	-3.70	3.62 N	18.27@ 281.44	0.24	0.00
4146.00	0.62	141.52	4145.80	4120.80	-3.17	3.10 N	17.55@ 280.18	0.36	0.00
4239.00	0.70	138.84	4238.79	4213.79	-2.35	2.28 N	16.75@ 277.83	0.09	0.00

** TIED INTO EXTREME MWD SURVEYS AT 4239'MD.

THE FOLLOWING ARE PATHFINDER MWD SURVEYS.

4351.00	0.35	124.78	4350.79	4325.79	-1.64	1.57 N	15.94@ 275.65	0.33	104.64
4446.00	0.35	83.17	4445.78	4420.78	-1.50	1.44 N	15.40@ 275.36	0.26	108.25
4540.00	0.26	77.99	4539.78	4514.78	-1.58	1.52 N	14.92@ 275.84	0.10	108.25
4635.00	0.35	98.39	4634.78	4609.78	-1.58	1.52 N	14.42@ 276.05	0.15	108.25
4729.00	0.26	96.93	4728.78	4703.78	-1.51	1.45 N	13.92@ 275.99	0.10	111.87
4824.00	0.18	118.35	4823.78	4798.78	-1.41	1.36 N	13.57@ 275.73	0.12	111.87
4918.00	0.09	164.80	4917.78	4892.78	-1.27	1.21 N	13.41@ 275.20	0.14	111.87

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING
FIG: H&P 223

Page 03/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
5013.00	0.26	162.53	5012.78	4987.78	-0.99	0.94 N	13.30@ 274.04	0.18	115.48
5107.00	0.26	151.47	5106.78	5081.78	-0.60	0.55 N	13.11@ 272.38	0.05	115.48
5201.00	0.35	143.90	5200.78	5175.78	-0.18	0.13 N	12.83@ 270.56	0.10	115.48
5296.00	0.44	146.49	5295.77	5270.77	0.36	0.41 S	12.46@ 268.10	0.10	115.48
5390.00	0.53	133.78	5389.77	5364.77	0.96	1.01 S	11.99@ 265.15	0.15	119.09
5484.00	0.53	133.39	5483.77	5458.77	1.57	1.61 S	11.43@ 261.88	0.00	119.09
5579.00	0.62	121.46	5578.76	5553.76	2.14	2.18 S	10.78@ 258.31	0.16	119.09
5673.00	1.58	58.82	5672.75	5647.75	1.74	1.78 S	9.19@ 258.84	1.50	122.71
5768.00	2.46	47.51	5767.69	5742.69	-0.30	0.28 N	6.40@ 272.48	1.01	122.71
5862.00	3.69	44.04	5861.55	5836.55	-3.83	3.81 N	4.73@ 323.73	1.32	122.71
5956.00	3.69	43.19	5955.35	5930.35	-8.19	8.19 N	8.31@ 9.52	0.06	126.32
6051.00	4.75	40.38	6050.09	6025.09	-13.39	13.42 N	14.71@ 24.14	1.14	126.32
6145.00	4.66	40.55	6143.78	6118.78	-19.24	19.29 N	22.21@ 29.74	0.10	126.32
6240.00	4.75	41.52	6238.46	6213.46	-25.09	25.16 N	29.89@ 32.67	0.13	126.32
6334.00	4.57	45.95	6332.15	6307.15	-30.59	30.68 N	37.41@ 34.90	0.43	126.32
6428.00	4.66	42.97	6425.84	6400.84	-35.97	36.08 N	44.88@ 36.50	0.27	129.94
6522.00	4.48	44.72	6519.54	6494.54	-41.35	41.48 N	52.32@ 37.55	0.24	129.94
6617.00	4.66	45.34	6614.24	6589.24	-46.67	46.83 N	59.83@ 38.49	0.20	129.94
6711.00	4.48	46.02	6707.94	6682.94	-51.88	52.06 N	67.27@ 39.29	0.20	126.32
6805.00	4.22	44.49	6801.67	6776.67	-56.88	57.08 N	74.36@ 39.86	0.30	129.94
6899.00	4.75	42.72	6895.38	6870.38	-62.18	62.41 N	81.70@ 40.20	0.58	129.94
6994.00	4.84	39.57	6990.05	6965.05	-68.14	68.39 N	89.64@ 40.28	0.29	129.94
7088.00	4.40	45.12	7083.75	7058.75	-73.72	73.99 N	97.20@ 40.43	0.67	133.55
7183.00	4.40	45.87	7178.47	7153.47	-78.81	79.10 N	104.46@ 40.78	0.06	133.55
7277.00	5.36	38.69	7272.13	7247.13	-84.72	85.03 N	112.44@ 40.86	1.21	133.55
7371.00	5.28	40.06	7365.72	7340.72	-91.44	91.77 N	121.15@ 40.76	0.16	133.55
7466.00	5.01	39.51	7460.34	7435.34	-97.96	98.32 N	129.67@ 40.69	0.29	133.55
7560.00	4.84	40.93	7553.99	7528.99	-104.10	104.48 N	137.74@ 40.66	0.22	133.55

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING
RIG: H&P 223

Page 04/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
7655.00	5.28	35.05	7648.62	7623.62	-110.69	111.09 N 94.89 E	146.09@ 40.50	0.72	137.17
7749.00	5.10	34.23	7742.24	7717.24	-117.66	118.08 N 99.72 E	154.56@ 40.18	0.21	137.17
7844.00	5.01	36.02	7836.87	7811.87	-124.49	124.93 N 104.54 E	162.89@ 39.92	0.19	137.17
7938.00	4.40	34.54	7930.55	7905.55	-130.76	131.22 N 108.99 E	170.58@ 39.71	0.66	137.17
8032.00	4.40	35.68	8024.27	7999.27	-136.64	137.12 N 113.14 E	177.77@ 39.53	0.09	137.17
8125.00	3.17	36.93	8117.07	8092.07	-141.58	142.07 N 116.77 E	183.90@ 39.42	1.33	137.17
8219.00	1.32	40.34	8210.99	8185.99	-144.47	144.97 N 119.03 E	187.58@ 39.39	1.97	137.17
8314.00	0.44	68.30	8305.98	8280.98	-145.44	145.94 N 120.08 E	188.99@ 39.45	1.00	137.17
8408.00	0.70	49.97	8399.97	8374.97	-145.94	146.44 N 120.85 E	189.87@ 39.53	0.34	137.17
8503.00	0.62	30.92	8494.97	8469.97	-146.75	147.26 N 121.56 E	190.95@ 39.54	0.24	140.78
8598.00	0.70	30.41	8589.96	8564.96	-147.69	148.20 N 122.12 E	192.03@ 39.49	0.08	140.78
8692.00	0.62	355.65	8683.96	8658.96	-148.69	149.20 N 122.37 E	192.97@ 39.36	0.43	140.78
8787.00	0.53	252.57	8778.95	8753.95	-149.07	149.58 N 121.91 E	192.97@ 39.18	0.95	140.78
8881.00	0.62	276.72	8872.95	8847.95	-149.00	149.51 N 120.99 E	192.34@ 38.98	0.27	144.39
8976.00	0.88	275.12	8967.94	8942.94	-149.13	149.64 N 119.76 E	191.66@ 38.67	0.27	144.39
9070.00	1.14	278.08	9061.93	9036.93	-149.34	149.83 N 118.11 E	190.79@ 38.25	0.28	144.39
9165.00	0.97	326.41	9156.91	9131.91	-150.15	150.64 N 116.73 E	190.57@ 37.77	0.92	144.39
9259.00	0.70	346.44	9250.90	9225.90	-151.37	151.86 N 116.16 E	191.19@ 37.41	0.42	144.39
9354.00	0.35	107.54	9345.90	9320.90	-151.85	152.33 N 116.30 E	191.65@ 37.36	0.98	144.39
9448.00	0.35	111.53	9439.90	9414.90	-151.65	152.14 N 116.84 E	191.83@ 37.52	0.03	148.01
9542.00	0.00	332.40	9533.90	9508.90	-151.54	152.04 N 117.10 E	191.91@ 37.61	0.37	148.01
9636.00	0.26	329.05	9627.90	9602.90	-151.73	152.22 N 117.00 E	191.99@ 37.55	0.28	148.01
9730.00	0.88	350.74	9721.89	9696.89	-152.62	153.11 N 116.77 E	192.56@ 37.33	0.69	148.01
9824.00	1.41	1.65	9815.87	9790.87	-154.49	154.98 N 116.69 E	194.00@ 36.98	0.61	148.01
9852.00	1.49	7.39	9843.86	9818.86	-155.20	155.69 N 116.74 E	194.60@ 36.86	0.59	140.78
9915.00	2.46	175.35	9906.85	9881.85	-154.66	155.15 N 116.96 E	194.30@ 37.01	6.24	140.78
9947.00	5.72	180.02	9938.76	9913.76	-152.38	152.87 N 117.01 E	192.52@ 37.43	10.23	140.78
9978.00	9.23	182.23	9969.50	9944.50	-148.35	148.84 N 116.92 E	189.27@ 38.15	11.36	140.78

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING
RIG: H&P 223

Page 05/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
10010.00	12.40	184.46	10000.92	9975.92	-142.36	142.85 N	116.55 E	184.36@ 39.21	140.78
10041.00	14.68	185.87	10031.06	10006.06	-135.14	135.62 N	115.89 E	178.39@ 40.51	140.78
10073.00	18.03	183.37	10061.76	10036.76	-126.16	126.64 N	115.18 E	171.19@ 42.29	140.78
10104.00	20.75	183.06	10091.00	10066.00	-115.89	116.37 N	114.61 E	163.33@ 44.56	140.78
10136.00	23.57	183.02	10120.63	10095.63	-103.84	104.32 N	113.97 E	154.50@ 47.53	144.39
10167.00	26.82	181.63	10148.68	10123.68	-90.66	91.13 N	113.44 E	145.51@ 51.22	144.39
10199.00	29.63	180.72	10176.87	10151.87	-75.53	76.01 N	113.14 E	136.30@ 56.11	144.39
10230.00	31.92	182.05	10203.51	10178.51	-59.68	60.15 N	112.75 E	127.79@ 61.92	144.39
10261.00	35.26	182.83	10229.33	10204.33	-42.55	43.02 N	112.01 E	119.99@ 68.99	144.39
10293.00	38.60	183.90	10254.90	10229.90	-23.36	23.83 N	110.88 E	113.41@ 77.87	144.39
10324.00	41.77	185.03	10278.58	10253.58	-3.43	3.89 N	109.31 E	109.38@ 87.96	144.39
10356.00	45.55	188.39	10301.73	10276.73	18.48	18.04 S	106.71 E	108.22@ 99.59	148.01
10387.00	48.89	189.25	10322.78	10297.78	40.95	40.52 S	103.22 E	110.89@ 111.43	148.01
10418.00	51.79	187.78	10342.57	10317.57	64.53	64.12 S	99.69 E	118.53@ 122.75	144.39
10450.00	55.66	186.65	10361.50	10336.50	90.11	89.71 S	96.46 E	131.72@ 132.92	148.01
10482.00	59.27	185.83	10378.71	10353.71	116.91	116.52 S	93.53 E	149.41@ 141.25	148.01
10513.00	62.61	184.87	10393.76	10368.76	143.87	143.49 S	91.01 E	169.92@ 147.62	148.01
10544.00	66.65	183.95	10407.04	10382.04	171.79	171.42 S	88.86 E	193.08@ 152.60	148.01
10576.00	69.56	182.63	10418.97	10393.97	201.42	201.06 S	87.16 E	219.13@ 156.56	148.01
10607.00	71.58	182.16	10429.28	10404.28	230.62	230.26 S	85.94 E	245.78@ 159.53	148.01
10638.00	73.16	182.36	10438.67	10413.67	260.14	259.78 S	84.77 E	273.26@ 161.93	148.01
10670.00	75.18	182.22	10447.40	10422.40	290.89	290.54 S	83.54 E	302.32@ 163.96	148.01
10701.00	77.82	182.31	10454.64	10429.64	321.00	320.66 S	82.35 E	331.07@ 165.60	148.01
10732.00	80.02	181.24	10460.60	10435.60	351.40	351.07 S	81.41 E	360.38@ 166.94	148.01
10764.00	81.95	180.27	10465.61	10440.61	383.00	382.67 S	80.99 E	391.14@ 168.05	148.01
10790.00	83.45	179.89	10468.91	10443.91	408.79	408.45 S	80.96 E	416.40@ 168.79	144.39
10884.00	86.35	180.26	10477.27	10452.27	502.41	502.07 S	80.83 E	508.54@ 170.85	148.01
10979.00	87.14	180.22	10482.66	10457.66	597.25	596.92 S	80.44 E	602.31@ 172.33	148.01

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING
RIG: H&P 223

Page 06/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
11073.00	89.34	181.75	10485.55	10460.55	691.17	690.85 S	695.33@ 173.49	2.85	151.62
11167.00	89.25	181.51	10486.71	10461.71	785.12	784.81 S	788.49@ 174.46	0.27	151.62
11262.00	89.08	181.33	10488.09	10463.09	880.07	879.77 S	882.85@ 175.21	0.26	155.24
11356.00	88.64	181.07	10489.96	10464.96	974.02	973.73 S	976.37@ 175.78	0.54	155.24
11450.00	88.11	181.45	10492.63	10467.63	1067.95	1067.67 S	1069.94@ 176.26	0.69	158.85
11545.00	87.58	181.23	10496.20	10471.20	1162.84	1162.57 S	1164.53@ 176.68	0.60	158.85
11639.00	89.16	180.64	10498.87	10473.87	1256.78	1256.52 S	1258.25@ 176.99	1.79	158.85
11733.00	88.90	180.65	10500.46	10475.46	1350.76	1350.50 S	1352.06@ 177.25	0.28	162.46
11827.00	89.69	180.63	10501.62	10476.62	1444.74	1444.48 S	1445.90@ 177.47	0.84	158.85
11922.00	89.52	180.78	10502.27	10477.27	1539.72	1539.48 S	1540.75@ 177.67	0.24	162.46
12016.00	89.16	180.94	10503.36	10478.36	1633.70	1633.46 S	1634.61@ 177.85	0.42	155.24
12110.00	90.48	180.53	10503.65	10478.65	1727.68	1727.45 S	1728.49@ 178.01	1.47	158.85
12205.00	89.78	179.77	10503.44	10478.44	1822.68	1822.45 S	1823.43@ 178.12	1.09	162.46
12299.00	90.66	180.67	10503.08	10478.08	1916.67	1916.44 S	1917.37@ 178.22	1.34	162.46
12393.00	90.00	180.33	10502.54	10477.54	2010.67	2010.44 S	2011.29@ 178.33	0.79	151.62
12488.00	89.52	180.30	10502.93	10477.93	2105.66	2105.43 S	2106.24@ 178.42	0.51	166.08
12582.00	88.37	180.22	10504.66	10479.66	2199.64	2199.42 S	2200.17@ 178.50	1.23	166.08
12676.00	90.31	180.77	10505.75	10480.75	2293.62	2293.40 S	2294.11@ 178.58	2.14	166.08
12771.00	89.69	181.80	10505.75	10480.75	2388.58	2388.38 S	2389.00@ 178.69	1.27	169.69
12865.00	88.72	182.68	10507.05	10482.05	2482.48	2482.29 S	2482.82@ 178.82	1.39	169.69
12960.00	88.90	182.85	10509.02	10484.02	2577.33	2577.16 S	2577.58@ 178.97	0.26	169.69
13054.00	90.40	185.16	10509.60	10484.60	2671.06	2670.92 S	2671.22@ 179.14	2.93	166.08
13149.00	91.54	183.34	10507.99	10482.99	2765.75	2765.64 S	2765.84@ 179.32	2.26	169.69
13243.00	90.57	183.06	10506.26	10481.26	2859.57	2859.48 S	2859.61@ 179.45	1.07	169.69
13337.00	91.89	181.87	10504.24	10479.24	2953.44	2953.36 S	2953.46@ 179.54	1.89	169.69
13431.00	91.89	181.87	10501.14	10476.14	3047.32	3047.26 S	3047.33@ 179.61	0.00	169.69
13525.00	91.10	181.77	10498.69	10473.69	3141.23	3141.18 S	3141.23@ 179.68	0.85	169.69
13619.00	91.19	182.04	10496.81	10471.81	3235.14	3235.11 S	3235.15@ 179.74	0.30	173.31

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
COTTON DRAW UNIT 240H
PADUCA; BONE SPRING
RIG: H&P 223

Page 07/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	Rectangular Offsets (ft)	TOTAL (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
13713.00	88.99	181.15	10496.66	10471.66	3329.09	3329.07 S	11.85 E	3329.09@ 179.80	2.53	173.31
13808.00	87.58	181.41	10499.51	10474.51	3424.01	3424.00 S	9.73 E	3424.01@ 179.84	1.51	173.31
13903.00	88.46	180.48	10502.79	10477.79	3518.93	3518.93 S	8.17 E	3518.94@ 179.87	1.35	173.31
13997.00	88.90	180.85	10504.95	10479.95	3612.90	3612.90 S	7.08 E	3612.90@ 179.89	0.61	173.31
14092.00	86.70	179.94	10508.60	10483.60	3707.81	3707.82 S	6.42 E	3707.82@ 179.90	2.51	173.31
14186.00	85.74	180.24	10514.80	10489.80	3801.60	3801.61 S	6.28 E	3801.62@ 179.91	1.07	173.31
14281.00	86.70	179.36	10521.06	10496.06	3896.40	3896.40 S	6.61 E	3896.41@ 179.90	1.37	173.31
14375.00	88.29	179.40	10525.17	10500.17	3990.30	3990.30 S	7.62 E	3990.31@ 179.89	1.69	173.31
14470.00	90.75	178.91	10525.96	10500.96	4085.29	4085.28 S	9.02 E	4085.29@ 179.87	2.64	169.69
14565.00	90.22	178.49	10525.16	10500.16	4180.27	4180.26 S	11.18 E	4180.27@ 179.85	0.71	173.31
14659.00	89.52	178.81	10525.37	10500.37	4274.25	4274.23 S	13.39 E	4274.25@ 179.82	0.82	176.92
14753.00	89.25	179.03	10526.38	10501.38	4368.23	4368.21 S	15.17 E	4368.23@ 179.80	0.37	176.92
14847.00	88.81	178.85	10527.97	10502.97	4462.21	4462.18 S	16.90 E	4462.21@ 179.78	0.51	176.92
14941.00	87.85	179.04	10530.71	10505.71	4556.16	4556.12 S	18.63 E	4556.16@ 179.77	1.04	176.92
15009.00	87.14	179.29	10533.68	10508.68	4624.09	4624.05 S	19.62 E	4624.09@ 179.76	1.11	173.31
15068.00	87.14	179.29	10536.63	10511.63	4683.01	4682.97 S	20.35 E	4683.01@ 179.75	0.00	0.00

STRAIGHT LINE PROJECTION TO BIT AT 15068' MD.

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.