



A Schlumberger Company

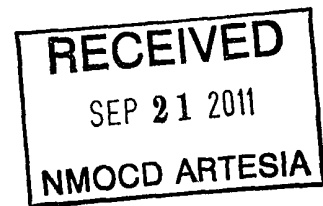
DIRECTIONAL SURVEY REPORT

30-015-38484

DEVON ENERGY

BEETLE JUICE 19 FED #1H

EDDY COUNTY, NEW MEXICO



PREPARED BY: FRANCISCO SINISTERRA

Pathfinder

6213 W Interstate 20
Midland, Texas 79706
Tel 432 687 1647
Fax 432 687 1544



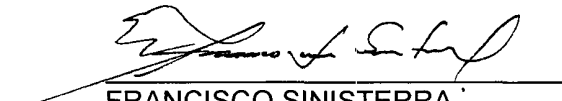
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JUAN ALCOCER
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 06-02-11 TO 06-07-11
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG: H&P 300

9. SURVEY CERTIFIED FROM: 8342 TO 13301 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4581.86 FEET ON A BEARING OF 187.98 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13355 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



FRANCISCO SINISTERRA
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 06/02/2011
Date Completed: 06/07/2011

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
HACKBERRY; BONE SPRING
Rig:H&P 300
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:JUAN ALCOCER
ALEX DUCATE

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.39.7.2515 N LON:103.54.4.0874 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 674357.4800 Y: 601204.4500
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.54° EAST TO GRID
Vertical Section Plane: 187.81
Survey Vert. Reference: 26.00' Kelly Bushing To Ground
Altitude:3415.10' Ground To MSL

Measured Depth	13355.00	(feet)
Inclination	90.75	(deg)
Azimuth	182.27	(deg)
True Vertical Depth	8878.83	(feet)
Vertical Section	4581.44	(feet)
Survey X cord	673721.62	(feet)
Survey Y cord	596667.33	(feet)
Survey Lat	32.63955046 N	(deg)
Survey Lon	103.90326102 W	(deg)
Rectangular Corr. N/S	4537.12 S	(feet)
Rectangular Corr. E/W	635.86 W	(feet)
Closure Distance	4581.46	(feet)
Direction of Closure	187.98	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION

BEETLE JUICE 19 FED #1H

EDDY COUNTY, NM

Rig:H&P 300

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: JUAN ALCOCER

ALEX DUCATE

Page 01/06

Tie-in Date: 06/02/2011

Date Completed: 06/07/2011

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.39.7.2515 N LON:103.54.4.0874 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 674357.4800 Y: 601204.4500

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.54° EAST TO GRID

Vertical Section Plane: 187.81

Survey Vert. Reference: 26.00' Kelly Bushing To Ground

Altitude:3415.10' Ground To MSL

Survey Calculations by PathCalc v2.00 using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE GYRODATA DIRECTIONAL SURVEYS.										
0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00@	0.00	0.00
100.00	0.25	98.57	100.00	100.00	0.00	0.03 S	0.22 E	0.22@	98.57	0.25
200.00	0.61	81.38	200.00	100.00	-0.14	0.01 N	0.96 E	0.96@	89.12	0.38
300.00	2.40	73.87	299.96	100.00	-1.15	0.68 N	3.50 E	3.56@	79.05	1.80
400.00	2.89	72.26	399.85	100.00	-3.08	2.03 N	7.91 E	8.16@	75.63	0.50
500.00	2.39	63.94	499.75	100.00	-5.33	3.71 N	12.18 E	12.73@	73.06	0.63
600.00	2.18	60.33	599.67	100.00	-7.65	5.57 N	15.71 E	16.67@	70.48	0.25
700.00	2.15	64.05	699.59	100.00	-9.85	7.33 N	19.05 E	20.41@	68.95	0.14
800.00	2.33	63.71	799.52	100.00	-12.03	9.05 N	22.56 E	24.30@	68.14	0.18
900.00	2.33	61.77	899.44	100.00	-14.37	10.91 N	26.17 E	28.35@	67.36	0.08
1000.00	2.29	60.95	999.35	100.00	-16.76	12.84 N	29.71 E	32.37@	66.62	0.05
1100.00	2.34	63.32	1099.27	100.00	-19.12	14.73 N	33.28 E	36.39@	66.12	0.11
1200.00	2.64	62.17	1199.18	100.00	-21.61	16.72 N	37.14 E	40.73@	65.76	0.30
1300.00	3.34	59.49	1299.04	100.00	-24.76	19.28 N	41.69 E	45.93@	65.18	0.71
1400.00	3.93	56.69	1398.84	100.00	-28.82	22.64 N	47.06 E	52.22@	64.31	0.62
1500.00	4.19	58.56	1498.59	100.00	-33.39	26.43 N	53.04 E	59.26@	63.52	0.29
1600.00	4.38	58.44	1598.31	100.00	-38.12	30.33 N	59.41 E	66.70@	62.95	0.19
1700.00	4.33	57.71	1698.02	100.00	-42.98	34.35 N	65.86 E	74.27@	62.46	0.07
1800.00	4.07	62.40	1797.75	100.00	-47.46	38.01 N	72.19 E	81.58@	62.24	0.43
1900.00	4.15	62.00	1897.49	100.00	-51.64	41.35 N	78.53 E	88.75@	62.23	0.08
2000.00	3.19	66.64	1997.29	100.00	-55.19	44.15 N	84.28 E	95.14@	62.35	1.00
2100.00	2.78	73.86	2097.15	100.00	-57.62	45.93 N	89.16 E	100.30@	62.75	0.56
2200.00	2.56	79.86	2197.05	100.00	-59.29	47.00 N	93.69 E	104.82@	63.36	0.36

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG:H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
2300.00	2.33	80.34	2296.95	100.00	-60.59	47.73 N	97.89 E	108.91@	64.01	0.23
2400.00	1.99	85.83	2396.88	100.00	-61.56	48.20 N	101.63 E	112.48@	64.63	0.40
2500.00	2.08	88.36	2496.82	100.00	-62.22	48.38 N	105.18 E	115.77@	65.30	0.13
2600.00	1.53	93.80	2596.77	100.00	-62.61	48.34 N	108.32 E	118.62@	65.95	0.58
2700.00	1.07	92.68	2696.74	100.00	-62.79	48.21 N	110.59 E	120.64@	66.45	0.46
2800.00	1.09	100.02	2796.73	100.00	-62.83	48.00 N	112.46 E	122.27@	66.89	0.14
2900.00	0.99	93.87	2896.71	100.00	-62.86	47.77 N	114.25 E	123.84@	67.31	0.15
3000.00	1.10	69.02	2996.69	100.00	-63.38	48.06 N	116.01 E	125.57@	67.50	0.46
3100.00	1.14	66.50	3096.67	100.00	-64.36	48.80 N	117.82 E	127.53@	67.50	0.06
3200.00	1.28	67.04	3196.65	100.00	-65.45	49.63 N	119.76 E	129.64@	67.49	0.14
3300.00	1.07	64.84	3296.63	100.00	-66.53	50.46 N	121.64 E	131.69@	67.47	0.21
3400.00	0.91	72.17	3396.62	100.00	-67.38	51.10 N	123.24 E	133.41@	67.48	0.20
3500.00	0.86	75.06	3496.60	100.00	-68.01	51.54 N	124.72 E	134.95@	67.55	0.07
3600.00	0.86	65.85	3596.59	100.00	-68.70	52.04 N	126.13 E	136.44@	67.58	0.14
3700.00	0.86	60.32	3696.58	100.00	-69.55	52.72 N	127.46 E	137.94@	67.53	0.08
3800.00	1.01	61.31	3796.57	100.00	-70.53	53.51 N	128.89 E	139.56@	67.45	0.15
3900.00	1.22	63.18	3896.55	100.00	-71.66	54.42 N	130.61 E	141.50@	67.38	0.21
4000.00	1.02	55.68	3996.53	100.00	-72.86	55.40 N	132.30 E	143.43@	67.28	0.25
4100.00	0.77	57.82	4096.52	100.00	-73.89	56.26 N	133.60 E	144.96@	67.16	0.25
4200.00	0.44	52.07	4196.51	100.00	-74.60	56.85 N	134.47 E	146.00@	67.08	0.34
4300.00	0.40	39.90	4296.51	100.00	-75.17	57.36 N	135.00 E	146.68@	66.98	0.10
4400.00	0.28	278.77	4396.51	100.00	-75.47	57.66 N	134.98 E	146.78@	66.87	0.60
4500.00	0.08	256.66	4496.51	100.00	-75.45	57.68 N	134.67 E	146.51@	66.81	0.21
4600.00	0.19	304.34	4596.51	100.00	-75.50	57.76 N	134.47 E	146.35@	66.75	0.15
4700.00	0.36	287.77	4696.51	100.00	-75.63	57.95 N	134.03 E	146.02@	66.62	0.19
4800.00	0.24	263.25	4796.51	100.00	-75.63	58.02 N	133.52 E	145.59@	66.51	0.17
4900.00	0.11	325.11	4896.51	100.00	-75.65	58.08 N	133.26 E	145.37@	66.45	0.21

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG:H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
5000.00	0.26	312.06	4996.50	100.00	-75.84	58.31 N	133.04 E	145.25@	66.33	0.15
5100.00	0.23	294.55	5096.50	100.00	-76.03	58.54 N	132.69 E	145.03@	66.19	0.08
5200.00	0.13	285.14	5196.50	100.00	-76.10	58.66 N	132.40 E	144.81@	66.11	0.10
5300.00	0.16	42.22	5296.50	100.00	-76.23	58.79 N	132.38 E	144.85@	66.05	0.25
5400.00	0.66	28.32	5396.50	100.00	-76.89	59.40 N	132.75 E	145.43@	65.89	0.51
5500.00	0.71	30.85	5496.49	100.00	-78.00	60.44 N	133.34 E	146.40@	65.62	0.06
5600.00	0.55	17.54	5596.49	100.00	-79.04	61.43 N	133.80 E	147.23@	65.34	0.22
5700.00	0.44	9.36	5696.48	100.00	-79.90	62.26 N	134.01 E	147.77@	65.08	0.13
5800.00	0.34	0.41	5796.48	100.00	-80.57	62.94 N	134.07 E	148.11@	64.85	0.12
5900.00	0.47	335.48	5896.48	100.00	-81.22	63.61 N	133.90 E	148.24@	64.59	0.22
6000.00	0.68	322.57	5996.47	100.00	-81.98	64.45 N	133.37 E	148.13@	64.21	0.25
6100.00	1.00	304.39	6096.46	100.00	-82.79	65.42 N	132.29 E	147.58@	63.69	0.41
6200.00	1.43	286.92	6196.44	100.00	-83.38	66.27 N	130.38 E	146.26@	63.05	0.56
6300.00	1.57	287.21	6296.41	100.00	-83.80	67.04 N	127.88 E	144.38@	62.33	0.14
6400.00	1.58	290.43	6396.37	100.00	-84.32	67.93 N	125.28 E	142.51@	61.53	0.09
6500.00	1.63	290.04	6496.33	100.00	-84.92	68.90 N	122.65 E	140.67@	60.67	0.05
6600.00	1.78	278.10	6596.28	100.00	-85.23	69.60 N	119.77 E	138.53@	59.84	0.38
6700.00	2.32	274.13	6696.22	100.00	-85.11	69.97 N	116.22 E	135.65@	58.95	0.56
6800.00	2.48	277.19	6796.13	100.00	-84.96	70.38 N	112.05 E	132.32@	57.87	0.20
6900.00	2.46	281.34	6896.04	100.00	-85.07	71.08 N	107.80 E	129.12@	56.60	0.18
7000.00	2.24	289.71	6995.96	100.00	-85.60	72.16 N	103.86 E	126.46@	55.21	0.41
7100.00	1.97	295.25	7095.89	100.00	-86.52	73.55 N	100.46 E	124.51@	53.79	0.34
7200.00	1.48	300.31	7195.84	100.00	-87.53	74.94 N	97.79 E	123.20@	52.54	0.51
7300.00	1.05	305.69	7295.82	100.00	-88.45	76.12 N	95.93 E	122.47@	51.57	0.45
7400.00	0.98	308.74	7395.80	100.00	-89.32	77.19 N	94.52 E	122.04@	50.76	0.09
7500.00	1.27	291.46	7495.78	100.00	-90.02	78.13 N	92.82 E	121.33@	49.91	0.44
7600.00	1.38	281.17	7595.76	100.00	-90.35	78.77 N	90.61 E	120.06@	49.00	0.26

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG:H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
7700.01	0.90	272.11	7695.75	100.01	-90.35	79.03 N	88.65 E	118.76@	48.28	0.51
7800.01	0.91	210.04	7795.74	100.00	-89.53	78.37 N	87.46 E	117.44@	48.14	0.93
7900.01	0.67	207.47	7895.73	100.00	-88.25	77.17 N	86.80 E	116.14@	48.36	0.24
8000.01	0.84	199.82	7995.72	100.00	-86.98	75.96 N	86.28 E	114.95@	48.64	0.20
8100.01	0.94	221.38	8095.71	100.00	-85.58	74.66 N	85.49 E	113.50@	48.87	0.35
8200.01	1.20	235.67	8195.69	100.00	-84.19	73.45 N	84.08 E	111.64@	48.86	0.37
TIE IN TO GYRODATA DIRECTIONAL SURVEYS.										
8216.00	1.11	225.62	8211.68	15.99	-83.96	73.25 N	83.83 E	111.32@	48.85	1.38
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
8342.00	18.03	217.33	8335.47	126.00	-65.89	56.77 N	71.04 E	90.94@	51.37	13.44
8373.00	21.37	220.68	8364.66	31.00	-56.97	48.67 N	64.45 E	80.76@	52.94	11.37
8405.00	23.48	219.88	8394.23	32.00	-46.67	39.35 N	56.56 E	68.90@	55.17	6.66
8468.00	27.70	218.92	8451.04	63.00	-23.49	18.32 N	39.31 E	43.37@	65.01	6.73
8499.00	29.28	219.27	8478.29	31.00	-10.86	6.84 N	29.98 E	30.75@	77.14	5.13
8531.00	29.99	218.04	8506.10	32.00	2.73	5.51 S	20.10 E	20.84@	105.34	2.92
8562.00	30.16	218.21	8532.93	31.00	16.14	17.73 S	10.51 E	20.61@	149.35	0.61
8594.00	31.57	218.04	8560.39	32.00	30.31	30.65 S	0.37 E	30.65@	179.30	4.41
8625.00	33.77	217.69	8586.49	31.00	44.80	43.86 S	9.90 W	44.96@	192.72	7.12
8657.00	36.84	216.72	8612.60	32.00	60.91	58.59 S	21.07 W	62.26@	199.78	9.75
8688.00	40.89	214.44	8636.73	31.00	78.12	74.41 S	32.37 W	81.15@	203.51	13.85
8720.00	44.49	213.91	8660.25	32.00	97.56	92.36 S	44.56 W	102.55@	205.75	11.31
8751.00	47.92	213.29	8681.70	31.00	117.71	111.00 S	56.93 W	124.75@	207.15	11.16
8783.00	50.91	214.70	8702.52	32.00	139.51	131.14 S	70.53 W	148.90@	208.27	9.92
8814.00	54.17	215.58	8721.37	31.00	161.36	151.26 S	84.69 W	173.35@	209.24	10.75
8846.00	58.30	216.02	8739.15	32.00	184.85	172.83 S	100.25 W	199.80@	210.12	12.96
8877.00	62.17	215.49	8754.54	31.00	208.62	194.66 S	115.97 W	226.59@	210.78	12.57
8909.00	65.60	215.58	8768.62	32.00	234.05	218.04 S	132.67 W	255.23@	211.32	10.72

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG:H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8940.00	69.38	215.58	8780.49	31.00	259.38	241.33 S	149.33 W	283.79@	211.75	12.19
8972.00	72.46	214.96	8790.95	32.00	286.22	266.02 S	166.79 W	313.98@	212.09	9.80
9003.00	75.53	215.58	8799.50	31.00	312.65	290.34 S	183.99 W	343.73@	212.36	10.09
9035.00	79.84	215.93	8806.32	32.00	340.26	315.71 S	202.25 W	374.94@	212.65	13.51
9066.00	83.01	216.02	8810.94	31.00	367.28	340.51 S	220.26 W	405.54@	212.90	10.23
9098.00	85.03	216.28	8814.27	32.00	395.29	366.21 S	239.03 W	437.32@	213.13	6.36
9124.00	86.26	216.28	8816.25	26.00	418.08	387.11 S	254.37 W	463.20@	213.31	4.73
9218.00	87.05	213.38	8821.73	94.00	501.67	464.13 S	307.96 W	557.01@	213.57	3.19
9313.00	88.64	210.83	8825.31	95.00	588.19	544.53 S	358.41 W	651.90@	213.35	3.16
9408.00	89.25	207.40	8827.06	95.00	676.67	627.50 S	404.62 W	746.64@	212.81	3.67
9502.00	89.16	204.24	8828.36	94.00	766.04	712.10 S	445.55 W	840.00@	212.03	3.36
9597.00	88.72	201.87	8830.12	95.00	857.68	799.49 S	482.74 W	933.93@	211.12	2.54
9691.00	88.55	200.55	8832.36	94.00	949.09	887.10 S	516.74 W	1026.63@	210.22	1.42
9786.00	89.25	197.47	8834.18	95.00	1042.25	976.89 S	547.68 W	1119.94@	209.28	3.32
9880.00	88.99	193.96	8835.63	94.00	1135.33	1067.35 S	573.13 W	1211.49@	208.23	3.74
9975.00	89.69	190.44	8836.72	95.00	1230.03	1160.18 S	593.20 W	1303.04@	207.08	3.78
10069.00	89.69	186.84	8837.23	94.00	1324.00	1253.10 S	607.32 W	1392.51@	205.86	3.83
10164.00	88.99	184.64	8838.32	95.00	1418.93	1347.61 S	616.82 W	1482.07@	204.59	2.43
10258.00	89.08	182.35	8839.91	94.00	1512.64	1441.42 S	622.55 W	1570.11@	203.36	2.44
10353.00	90.04	178.57	8840.64	95.00	1606.84	1536.39 S	623.31 W	1658.02@	202.08	4.11
10447.00	89.96	179.28	8840.64	94.00	1699.71	1630.38 S	621.55 W	1744.83@	200.87	0.76
10542.00	89.96	179.81	8840.70	95.00	1793.73	1725.37 S	620.79 W	1833.66@	199.79	0.56
10637.00	87.85	180.69	8842.52	95.00	1887.88	1820.35 S	621.21 W	1923.42@	198.84	2.41
10732.00	87.32	181.04	8846.52	95.00	1982.10	1915.25 S	622.64 W	2013.92@	198.01	0.67
10826.00	88.20	180.51	8850.20	94.00	2075.32	2009.17 S	623.91 W	2103.81@	197.25	1.09
10921.00	87.85	180.51	8853.47	95.00	2169.49	2104.11 S	624.76 W	2194.90@	196.54	0.37
11015.00	86.97	180.77	8857.72	94.00	2262.66	2198.01 S	625.80 W	2285.36@	195.89	0.98

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG:H&P 300

Page 06/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
11109.00	88.64	181.21	8861.32	94.00	2355.92	2291.92 S	627.43 W	2376.25@	195.31	1.84
11204.00	89.69	180.86	8862.70	95.00	2450.25	2386.89 S	629.14 W	2468.42@	194.77	1.17
11299.00	90.57	179.72	8862.49	95.00	2544.43	2481.89 S	629.62 W	2560.51@	194.23	1.52
11393.00	90.48	180.25	8861.63	94.00	2637.55	2575.88 S	629.60 W	2651.71@	193.73	0.57
11488.00	90.48	178.05	8860.83	95.00	2731.45	2670.87 S	628.19 W	2743.75@	193.24	2.32
11583.00	90.57	178.31	8859.96	95.00	2825.11	2765.81 S	625.17 W	2835.59@	192.74	0.29
11677.00	88.37	178.31	8860.83	94.00	2917.81	2859.76 S	622.40 W	2926.71@	192.28	2.34
11772.00	87.93	178.75	8863.90	95.00	3011.52	2954.68 S	619.97 W	3019.02@	191.85	0.65
11866.00	88.37	179.98	8866.93	94.00	3104.45	3048.62 S	618.92 W	3110.82@	191.48	1.39
11961.00	87.85	180.25	8870.06	95.00	3198.54	3143.57 S	619.12 W	3203.96@	191.14	0.62
12055.00	87.23	181.92	8874.10	94.00	3291.81	3237.46 S	620.89 W	3296.47@	190.86	1.89
12150.00	89.25	180.95	8877.02	95.00	3386.17	3332.38 S	623.27 W	3390.17@	190.59	2.36
12244.00	89.16	180.95	8878.32	94.00	3479.49	3426.36 S	624.83 W	3482.87@	190.33	0.10
12339.00	91.28	179.89	8877.96	95.00	3573.69	3521.35 S	625.53 W	3576.48@	190.07	2.49
12433.00	91.01	180.77	8876.08	94.00	3666.87	3615.33 S	626.07 W	3669.14@	189.82	0.98
12528.00	89.43	179.37	8875.71	95.00	3761.00	3710.32 S	626.18 W	3762.79@	189.58	2.22
12622.00	89.43	180.07	8876.65	94.00	3854.06	3804.32 S	625.72 W	3855.43@	189.34	0.74
12717.00	88.90	179.72	8878.03	95.00	3948.14	3899.31 S	625.55 W	3949.17@	189.11	0.67
12811.00	89.34	179.37	8879.48	94.00	4041.16	3993.29 S	624.80 W	4041.88@	188.89	0.60
12906.00	89.60	180.69	8880.35	95.00	4135.27	4088.29 S	624.85 W	4135.76@	188.69	1.42
13001.00	89.78	180.95	8880.87	95.00	4229.57	4183.28 S	626.21 W	4229.89@	188.51	0.33
13095.00	90.04	180.95	8881.02	94.00	4322.89	4277.26 S	627.77 W	4323.09@	188.35	0.28
13190.00	90.40	181.65	8880.65	95.00	4417.28	4372.24 S	629.93 W	4417.38@	188.20	0.83
13301.00	90.75	182.27	8879.54	111.00	4527.70	4483.17 S	633.72 W	4527.73@	188.05	0.64
STRAIGHT LINE PROJECTION TO BIT @ 13355' MD.										
13355.00	90.75	182.27	8878.83	54.00	4581.44	4537.12 S	635.86 W	4581.46@	187.98	0.00

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
BEETLE JUICE 19 FED #1H
EDDY COUNTY, NM
RIG:H&P 300

Page 07/06

** 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.



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	DEVON ENERGY		
LEASE / WELL No.:	BEETLE JUICE 19 FED	#1H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY COUNTY	NM	USA
RIG:	H&P 300		
API WELL No:	30-015-38484		
JOB No:	700002665 WT-WT		
P.O. / AFE No.	157338		
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.53	LWD Calculated:	7.54
Agreed Upon:		7.54	
X =	674357.480000	Feet	Y = 601204.450000
Feet		Feet	
SITE LATITUDE:	32.652014 N	SITE LONGITUDE:	103.901135 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	187.81°		
KELLY BUSHING ELEVATION:	26 FT		
ALTITUDE:	3415.1	Feet	WATER DEPTH: N/A
		Feet	

TIE-IN SURVEY

MEASURED DEPTH:	8216'		
DRIFT ANGLE:	1.11		
DRIFT DIRECTION:	225.62		
TRUE VERTICAL DEPTH:	8211.68		
VERTICAL SECTION:	-84		
RECTANGULAR COORDINATE (N / S) :	73.24		
RECTANGULAR COORDINATE (E / W) :	83.78		
CLOSURE DISTANCE / DIRECTION:	111.28	48.84	
SURVEY CALCULATION METHOD:	AA ☐ MC ☒ RC ☐ BT ☐		
SOURCE OF TIE-IN DATA (COMPANY):	GYRODATA DIRECTIONAL SURVEY		
COPY OF TIE-IN SURVEY REPORT	☒ YES		☐ NO

WELL PLAN

KICKOFF DEPTH:	8252'	TOTAL DEPTH:	13288.89
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers:

JUAN ALCOCER

ALEX DUCATE

**Signature of both field engineers required if applicable

Directional Driller:

TREY FOURNIER

DATE: 1-Jun-2011

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

DEVON ENERGY
BEETLE JUICE "19" FEDERAL #1H
EDDY COUNTY, NEW MEXICO
Rig:HP 300

Mon May 30 09:57:07 2011

Coordinates

Latitude: 32.652014 N (32 deg. 39 min. 7.2515 sec.)
Longitude: 103.901135 W (-103 deg. 54 min. 4.0874 sec.)
Elevation: 3435.10 feet.
Calculation Date: May/30/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5274 degrees
Total Magnetic Field: 0.48842 gauss
Magnetic Declination: 7.775397 degrees
Horizontal Intensity: 0.240307 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.775397 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 674357.4800 feet
Y: 601204.4500 feet
True to Grid: (convergence) -0.233189 degrees
Magnetic to Grid: 7.542207 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.542207 Degr.

PathFinder Energy Services, Inc. Magnetic & Grid Calculations

DEVON ENERGY
BEETLE JUICE 19 FED#1H
EDDY COUNTY
Rig:HP 300

Wed Jun 01 10:19:06 2011

Coordinates

Latitude: 32.652014 N (32 deg. 39 min. 7.2515 sec.)
Longitude: 103.901135 W (-103 deg. 54 min. 4.0874 sec.)
Elevation: 3441.10 feet.
Calculation Date: Jun/01/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5273 degrees
Total Magnetic Field: 0.48842 gauss
Magnetic Declination: 7.774724 degrees
Horizontal Intensity: 0.240305 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.774724 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 674357.4800 feet
Y: 601204.4500 feet
True to Grid: (convergence) -0.233189 degrees
Magnetic to Grid: 7.541534 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.541534 Degs.

Pathfinder

6213 W Interstate 20
Midland, Texas, 79706
Tel 432 687 1647
Fax 432 687 1544



June 15, 2011

Devon Energy
20 N. Broadway
Oklahoma City, OK

RE: Devon Energy
Beetle Juice 19 FED #1H
API: 30-015-38333
Eddy County, NM
RIG: H&P 300
FIELD: Hackberry; Bone Spring
PES FILE NO.: 700002665-WT-WT

To whom it may concern:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

DIRECTIONAL SURVEY DATA
1 – Original survey report
2 – Survey report copies

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (432) 687-1647

Sincerely,

A handwritten signature in black ink, appearing to read "Francisco Sinisterra".

FRANCISCO SINISTERRA
M/LWD Service Coordinator
PathFinder Energy Services

ML:sh

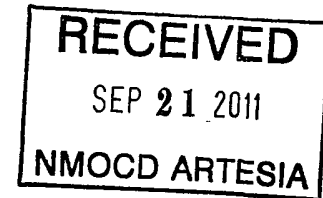
30-015-38484

A Gyrodata Directional Survey

for

DEVON ENERGY

Lease: BEATLEJUICE 19 FED Well: 1H, 4.5 INCH DRILL PIPE
Location: H&P 300, EDDY COUNTY, NEW MEXICO



Job Number: MD0511GVC277

Run Date: 6/1/2011 5:34:35 AM

Surveyor: Che Garcia

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Hand Held GPS
Survey Latitude: 32.653472 deg. N Longitude: 103.902333 deg. W

Azimuth Correction:

Gyro: -0.23000 deg to Grid North

Proposed Well Direction: 187.840 deg

Depth Reference: Rotary Table

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

A Gyrodata Directional Survey

DEVON ENERGY

Lease: BEATLEJUICE 19 FED Well: 1H, 4.5 INCH DRILL PIPE

Location: H&P 300, EDDY COUNTY, NEW MEXICO

Job Number: MD0511GVC277

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.0	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 TO 8216 FT RATE VERTICAL CONTINUOUS AND ORIENTATION SURVEY TO RUN INSIDE 4.5 INCH DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO H&P 300 R.K.B 26.2FT							
100.00	0.25	98.57	0.0	0.25	100.00	0.2 98.6	0.03 S 0.22 E
200.00	0.61	81.38	-0.1	0.37	200.00	1.0 89.2	0.01 N 0.96 E
300.00	2.40	73.87	-1.1	1.80	299.96	3.6 79.1	0.67 N 3.49 E
400.00	2.89	72.26	-3.1	0.50	399.85	8.1 75.6	2.02 N 7.89 E
500.00	2.39	63.94	-5.3	0.63	499.75	12.7 73.1	3.70 N 12.16 E
600.00	2.18	60.33	-7.7	0.25	599.67	16.6 70.5	5.56 N 15.68 E
700.00	2.15	64.05	-9.8	0.14	699.60	20.4 69.0	7.32 N 19.02 E
800.00	2.33	63.71	-12.0	0.18	799.52	24.3 68.1	9.04 N 22.52 E
900.00	2.33	61.77	-14.4	0.08	899.44	28.3 67.4	10.89 N 26.13 E
1000.00	2.29	60.95	-16.8	0.05	999.36	32.3 66.6	12.82 N 29.66 E
1100.00	2.34	63.32	-19.1	0.11	1099.27	36.3 66.1	14.71 N 33.23 E
1200.00	2.64	62.17	-21.6	0.30	1199.18	40.7 65.8	16.70 N 37.09 E
1300.00	3.34	59.49	-24.8	0.72	1299.04	45.9 65.2	19.25 N 41.63 E
1400.00	3.93	56.69	-28.8	0.61	1398.84	52.2 64.3	22.61 N 47.00 E
1500.00	4.19	58.56	-33.4	0.29	1498.59	59.2 63.5	26.40 N 52.98 E
1600.00	4.38	58.44	-38.1	0.19	1598.31	66.6 63.0	30.30 N 59.34 E
1700.00	4.33	57.71	-43.0	0.07	1698.02	74.2 62.5	34.31 N 65.79 E
1800.00	4.07	62.40	-47.5	0.43	1797.76	81.5 62.2	37.97 N 72.12 E
1900.00	4.15	62.00	-51.6	0.08	1897.50	88.7 62.2	41.32 N 78.47 E
2000.00	3.19	66.64	-55.2	1.00	1997.29	95.1 62.4	44.12 N 84.22 E

A Gyrodata Directional Survey

DEVON ENERGY

Lease: BEATLEJUICE 19 FED Well: 1H, 4 5 INCH DRILL PIPE

Location: H&P 300, EDDY COUNTY, NEW MEXICO

Job Number: MD0511GVC277

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
2100.00	2.78	73.86	-57.6	0.56	2097.16	100.2 62.7	45.90 N 89.10 E
2200.00	2.56	79.86	-59.3	0.35	2197.05	104.7 63.4	46.96 N 93.63 E
2300.00	2.33	80.34	-60.6	0.24	2296.96	108.8 64.0	47.70 N 97.83 E
2400.00	1.99	85.83	-61.6	0.39	2396.89	112.4 64.6	48.17 N 101.57 E
2500.00	2.08	88.36	-62.2	0.13	2496.82	115.7 65.3	48.34 N 105.12 E
2600.00	1.53	93.80	-62.6	0.58	2596.77	118.6 66.0	48.31 N 108.27 E
2700.00	1.07	92.68	-62.8	0.46	2696.75	120.6 66.5	48.17 N 110.54 E
2800.00	1.09	100.02	-62.9	0.14	2796.73	122.2 66.9	47.97 N 112.41 E
2900.00	0.99	93.87	-62.9	0.15	2896.71	123.8 67.3	47.74 N 114.21 E
3000.00	1.10	69.02	-63.4	0.46	2996.70	125.5 67.5	48.03 N 115.97 E
3100.00	1.14	66.50	-64.4	0.06	3096.68	127.5 67.5	48.77 N 117.78 E
3200.00	1.28	67.04	-65.5	0.14	3196.65	129.6 67.5	49.60 N 119.72 E
3300.00	1.07	64.84	-66.5	0.22	3296.63	131.6 67.5	50.43 N 121.59 E
3400.00	0.91	72.17	-67.4	0.20	3396.62	133.4 67.5	51.07 N 123.19 E
3500.00	0.86	75.06	-68.0	0.07	3496.61	134.9 67.6	51.51 N 124.68 E
3600.00	0.86	65.85	-68.7	0.14	3596.60	136.4 67.6	52.01 N 126.08 E
3700.00	0.86	60.32	-69.6	0.08	3696.58	137.9 67.5	52.69 N 127.42 E
3800.00	1.01	61.31	-70.6	0.15	3796.57	139.5 67.5	53.48 N 128.84 E
3900.00	1.22	63.18	-71.7	0.22	3896.55	141.4 67.4	54.39 N 130.57 E
4000.00	1.02	55.68	-72.9	0.25	3996.53	143.4 67.3	55.37 N 132.26 E
4100.00	0.77	57.82	-73.9	0.26	4096.52	144.9 67.2	56.23 N 133.56 E
4200.00	0.44	52.07	-74.6	0.33	4196.51	146.0 67.1	56.83 N 134.43 E
4300.00	0.40	39.90	-75.2	0.10	4296.51	146.6 67.0	57.33 N 134.96 E
4400.00	0.28	278.77	-75.5	0.60	4396.51	146.7 66.9	57.64 N 134.94 E
4500.00	0.08	256.66	-75.5	0.21	4496.51	146.5 66.8	57.66 N 134.63 E

A Gyrodata Directional Survey

DEVON ENERGY

Lease: BEATLEJUICE 19 FED Well: 1H, 4 5 INCH DRILL PIPE

Location: H&P 300, EDDY COUNTY, NEW MEXICO

Job Number: MD0511GVC277

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4600.00	0.19	304.34	-75.5	0.15	4596.51	146.3 66.8	57.73 N 134.43 E
4700.00	0.36	287.77	-75.7	0.19	4696.51	146.0 66.6	57.92 N 133.99 E
4800.00	0.24	263.25	-75.7	0.17	4796.51	145.5 66.5	57.99 N 133.48 E
4900.00	0.11	325.11	-75.7	0.21	4896.51	145.3 66.5	58.04 N 133.22 E
5000.00	0.26	312.06	-75.9	0.15	4996.51	145.2 66.3	58.27 N 133.00 E
5100.00	0.23	294.55	-76.0	0.08	5096.51	145.0 66.2	58.51 N 132.65 E
5200.00	0.13	285.14	-76.1	0.10	5196.51	144.8 66.1	58.62 N 132.35 E
5300.00	0.16	42.22	-76.3	0.25	5296.51	144.8 66.1	58.75 N 132.33 E
5400.00	0.66	28.32	-76.9	0.50	5396.50	145.4 65.9	59.36 N 132.69 E
5500.00	0.71	30.85	-78.0	0.07	5496.50	146.3 65.6	60.40 N 133.28 E
5600.00	0.55	17.54	-79.1	0.22	5596.49	147.2 65.3	61.39 N 133.75 E
5700.00	0.44	9.36	-79.9	0.13	5696.49	147.7 65.1	62.24 N 133.96 E
5800.00	0.34	0.41	-80.6	0.12	5796.48	148.1 64.9	62.91 N 134.02 E
5900.00	0.47	335.48	-81.3	0.22	5896.48	148.2 64.6	63.59 N 133.85 E
6000.00	0.68	322.57	-82.0	0.24	5996.48	148.1 64.2	64.44 N 133.32 E
6100.00	1.00	304.39	-82.8	0.41	6096.46	147.5 63.7	65.40 N 132.24 E
6200.00	1.43	286.92	-83.4	0.56	6196.44	146.2 63.1	66.26 N 130.33 E
6300.00	1.57	287.21	-83.8	0.14	6296.41	144.3 62.3	67.03 N 127.82 E
6400.00	1.58	290.43	-84.4	0.09	6396.37	142.5 61.5	67.91 N 125.22 E
6500.00	1.63	290.04	-85.0	0.05	6496.33	140.6 60.7	68.88 N 122.59 E
6600.00	1.78	278.10	-85.3	0.39	6596.29	138.5 59.8	69.59 N 119.71 E
6700.00	2.32	274.13	-85.1	0.55	6696.22	135.6 58.9	69.95 N 116.16 E
6800.00	2.48	277.19	-85.0	0.21	6796.13	132.3 57.9	70.37 N 111.99 E
6900.00	2.46	281.34	-85.1	0.18	6896.04	129.1 56.6	71.06 N 107.74 E

A Gyrodata Directional Survey

DEVON ENERGY

Lease: BEATLEJUICE 19 FED Well: 1H, 4.5 INCH DRILL PIPE

Location: H&P 300, EDDY COUNTY, NEW MEXICO

Job Number: MD0511GVC277

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
7000.00	2.24	289.71	-85.6	0.40	6995.96	126.4 55.2	72.14 N 103.80 E
7100.00	1.97	295.25	-86.5	0.34	7095.89	124.5 53.8	73.54 N 100.40 E
7200.00	1.48	300.31	-87.5	0.52	7195.85	123.1 52.5	74.92 N 97.73 E
7300.00	1.05	305.69	-88.5	0.44	7295.82	122.4 51.6	76.11 N 95.88 E
7400.00	0.98	308.74	-89.3	0.09	7395.80	122.0 50.7	77.18 N 94.46 E
7500.00	1.27	291.46	-90.0	0.44	7495.79	121.3 49.9	78.12 N 92.76 E
7600.00	1.38	281.17	-90.4	0.26	7595.76	120.0 49.0	78.76 N 90.55 E
7700.00	0.90	272.11	-90.4	0.51	7695.74	118.7 48.3	79.02 N 88.59 E
7800.00	0.91	210.04	-89.6	0.93	7795.73	117.4 48.1	78.37 N 87.41 E
7900.00	0.67	207.47	-88.3	0.25	7895.72	116.1 48.3	77.16 N 86.74 E
8000.00	0.84	199.82	-87.0	0.20	7995.71	114.9 48.6	75.95 N 86.22 E
8100.00	0.94	221.38	-85.6	0.34	8095.70	113.5 48.9	74.65 N 85.43 E
8200.00	1.20	235.67	-84.2	0.38	8195.68	111.6 48.8	73.45 N 84.03 E
8216.00	1.11	225.62	-84.0	1.38	8211.68	111.3 48.8	73.24 N 83.78 E

Final Station Closure: Distance: 111.28 ft Az: 48.84 deg.