



An Operating Unit of Smith International, Inc.

DIRECTIONAL SURVEY REPORT

30-015-3828.2

DEVON ENERGY

NORTH PURE GOLD 8 FEDERAL #15H

EDDY COUNTY, NEW MEXICO

RECEIVED

JUN 13 2011

NMOCD ARTESIA

PREPARED BY: FRANCISCO SINISTERRA

Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

Pathfinder

6213 W Interstate 20
Midland, Texas 79706
Tel 432.687.1647
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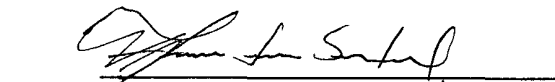
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JESUS BARRAZA
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 01-14-11 TO 01-22-11
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
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NM
RIG: H&P 416

9. SURVEY CERTIFIED FROM: 7870 TO 13563 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 5360.72 FEET ON A BEARING OF 359.06 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13617 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: 01/13/2011
Date Completed: 01/22/2011

DEVON ENERGY CORPORATION
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NEW MEXICO
Rig:H&P 416
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: JESUS BARRAZA
CANON TURNER

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.18.38.0201 N LON: 103.47.32.6487 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 708453.0430 Y: 477136.1940
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.46° EAST TO GRID
Vertical Section Plane: 359.12
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude: 3340.00' Ground To MSL

Measured Depth	13617.00	(feet)
Inclination	91.63	(deg)
Azimuth	0.00	(deg)
True Vertical Depth	8477.69	(feet)
Vertical Section	5360.71	(feet)
Survey X cord	708364.76	(feet)
Survey Y cord	482496.17	(feet)
Survey Lat	32.32529555 N	(deg)
Survey Lon	103.79260063 W	(deg)
Rectangular Corr. N/S	5359.99 N	(feet)
Rectangular Corr. E/W	88.26 W	(feet)
Closure Distance	5360.72	(feet)
Direction of Closure	359.06	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NEW MEXICO
Rig:H&P 416

PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: JESUS BARRAZA
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Page 01/07
Tie-in Date: 01/13/2011
Date Completed: 01/22/2011

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.18.38.0201 N LON:103.47.32.6487 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 708453.0430 Y: 477136.1940
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.46° EAST TO GRID
Vertical Section Plane: 359.12
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3340.00' Ground To MSL

Survey Calculations by RX5 V6.03D 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 SCIENTIFIC DRILLING GYRO SURVEYS.										
0.00	0.00	0.00	-0.00	0.00	-0.04	0.04 S	0.01 W	0.04@	200.55	0.00
100.00	0.32	304.07	100.00	100.00	0.12	0.12 N	0.24 W	0.27@	296.09	0.32
200.00	0.29	307.71	200.00	100.00	0.44	0.43 N	0.68 W	0.80@	302.51	0.03
300.00	0.28	284.05	300.00	100.00	0.66	0.65 N	1.11 W	1.29@	300.09	0.12
400.00	0.19	274.16	400.00	100.00	0.74	0.72 N	1.52 W	1.68@	295.30	0.10
500.00	0.10	299.41	500.00	100.00	0.80	0.77 N	1.76 W	1.92@	293.70	0.11
600.00	0.08	185.78	600.00	100.00	0.77	0.74 N	1.84 W	1.99@	292.03	0.15
700.00	0.06	195.73	700.00	100.00	0.65	0.63 N	1.86 W	1.96@	288.56	0.02
800.00	0.08	1.16	800.00	100.00	0.67	0.64 N	1.87 W	1.98@	288.97	0.14
900.00	0.04	283.57	900.00	100.00	0.75	0.72 N	1.91 W	2.04@	290.75	0.08
1000.00	0.11	85.20	1000.00	100.00	0.77	0.74 N	1.85 W	1.99@	291.82	0.15
1100.00	0.19	136.17	1099.99	100.00	0.65	0.63 N	1.63 W	1.75@	290.99	0.15
1200.00	0.12	198.96	1199.99	100.00	0.43	0.41 N	1.55 W	1.61@	284.73	0.17
1300.00	0.21	168.93	1299.99	100.00	0.15	0.13 N	1.55 W	1.56@	274.77	0.12
1400.00	0.17	167.57	1399.99	100.00	-0.17	0.20 S	1.49 W	1.50@	262.52	0.04
1500.00	0.17	233.21	1499.99	100.00	-0.40	0.43 S	1.57 W	1.63@	254.75	0.19
1600.00	0.20	221.65	1599.99	100.00	-0.62	0.65 S	1.81 W	1.92@	250.27	0.05
1700.00	0.15	181.89	1699.99	100.00	-0.88	0.91 S	1.93 W	2.13@	244.75	0.13
1800.00	0.07	257.94	1799.99	100.00	-1.02	1.05 S	1.99 W	2.25@	242.14	0.15
1900.00	0.18	231.94	1899.99	100.00	-1.13	1.16 S	2.18 W	2.47@	241.88	0.12
2000.00	0.14	261.67	1999.99	100.00	-1.24	1.28 S	2.42 W	2.74@	242.18	0.09
2100.00	0.14	209.86	2099.99	100.00	-1.36	1.40 S	2.60 W	2.95@	241.70	0.12
2200.00	0.15	291.91	2199.99	100.00	-1.41	1.46 S	2.78 W	3.14@	242.36	0.19
2300.00	0.04	321.76	2299.99	100.00	-1.34	1.38 S	2.93 W	3.24@	244.73	0.12

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NEW MEXICO
RIG:H&P 416

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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)
2400.00	0.15	15.36	2399.99	100.00	-1.18	1.23 S	2.91 W	3.16@	247.15	0.13
2500.00	0.32	330.76	2499.99	100.00	-0.81	0.86 S	3.02 W	3.14@	254.12	0.24
2600.00	0.50	332.96	2599.99	100.00	-0.17	0.23 S	3.35 W	3.36@	266.15	0.18
2700.00	0.74	330.31	2699.98	100.00	0.78	0.72 N	3.87 W	3.94@	280.60	0.24
2800.00	0.87	329.32	2799.97	100.00	2.01	1.94 N	4.58 W	4.97@	292.95	0.13
2900.00	0.82	329.48	2899.96	100.00	3.29	3.21 N	5.33 W	6.22@	301.05	0.05
3000.00	0.85	332.88	2999.95	100.00	4.58	4.48 N	6.03 W	7.51@	306.64	0.06
3100.00	0.80	332.03	3099.94	100.00	5.86	5.76 N	6.69 W	8.83@	310.72	0.05
3200.00	0.98	344.44	3199.93	100.00	7.31	7.20 N	7.25 W	10.22@	314.80	0.26
3300.00	0.94	27.03	3299.91	100.00	8.86	8.76 N	7.11 W	11.28@	320.93	0.70
3400.00	1.25	95.81	3399.90	100.00	9.46	9.38 N	5.65 W	10.95@	328.93	1.26
3500.00	1.36	107.60	3499.87	100.00	8.96	8.91 N	3.43 W	9.54@	338.92	0.29
3600.00	1.64	123.98	3599.84	100.00	7.76	7.75 N	1.11 W	7.83@	351.81	0.51
3700.00	2.12	131.55	3699.79	100.00	5.70	5.72 N	1.46 E	5.90@	14.28	0.54
3800.00	2.60	140.67	3799.70	100.00	2.67	2.74 N	4.28 E	5.08@	57.36	0.61
3900.00	2.53	140.77	3899.60	100.00	-0.83	0.72 S	7.11 E	7.15@	95.82	0.07
4000.00	1.99	138.62	3999.52	100.00	-3.88	3.74 S	9.65 E	10.35@	111.16	0.55
4100.00	1.59	138.43	4099.47	100.00	-6.26	6.08 S	11.72 E	13.20@	117.40	0.40
4200.00	1.47	133.08	4199.44	100.00	-8.20	7.99 S	13.58 E	15.76@	120.47	0.19
4300.00	1.31	131.89	4299.41	100.00	-9.87	9.63 S	15.37 E	18.14@	122.07	0.16
4400.00	1.15	138.63	4399.39	100.00	-11.41	11.15 S	16.88 E	20.23@	123.44	0.21
4500.00	1.11	123.22	4499.37	100.00	-12.71	12.43 S	18.36 E	22.17@	124.11	0.31
4600.00	1.11	108.61	4599.35	100.00	-13.58	13.27 S	20.08 E	24.07@	123.45	0.28
4700.00	0.99	108.00	4699.33	100.00	-14.18	13.85 S	21.82 E	25.85@	122.39	0.12
4800.00	0.95	97.76	4799.32	100.00	-14.58	14.23 S	23.47 E	27.44@	121.22	0.18
4900.00	0.65	98.52	4899.31	100.00	-14.80	14.42 S	24.85 E	28.73@	120.13	0.30
5000.00	0.38	97.79	4999.30	100.00	-14.94	14.55 S	25.74 E	29.57@	119.48	0.27
5100.00	0.48	96.98	5099.30	100.00	-15.05	14.65 S	26.48 E	30.26@	118.94	0.10
5200.00	0.30	76.86	5199.30	100.00	-15.05	14.64 S	27.15 E	30.85@	118.33	0.22
5300.00	0.29	78.09	5299.30	100.00	-14.95	14.53 S	27.66 E	31.24@	117.71	0.01

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Survey Report

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RIG:H&P 416

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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)
5400.00	0.24	71.57	5399.30	100.00	-14.84	14.41 S	28.10 E	31.58@	117.14	0.06
5500.00	0.29	68.35	5499.30	100.00	-14.68	14.25 S	28.54 E	31.90@	116.53	0.05
5600.00	0.08	10.95	5599.29	100.00	-14.53	14.09 S	28.79 E	32.05@	116.08	0.26
5700.00	0.13	313.63	5699.29	100.00	-14.38	13.94 S	28.72 E	31.92@	115.89	0.11
5800.00	0.30	277.91	5799.29	100.00	-14.26	13.83 S	28.37 E	31.56@	115.98	0.21
5900.00	0.26	261.60	5899.29	100.00	-14.25	13.82 S	27.89 E	31.13@	116.36	0.09
6000.00	0.41	229.07	5999.29	100.00	-14.51	14.09 S	27.40 E	30.81@	117.22	0.24
6100.00	0.73	197.70	6099.29	100.00	-15.34	14.93 S	26.93 E	30.79@	119.00	0.44
6200.00	0.77	190.40	6199.28	100.00	-16.61	16.20 S	26.62 E	31.16@	121.32	0.10
6300.00	1.12	197.45	6299.26	100.00	-18.19	17.79 S	26.20 E	31.67@	124.18	0.37
6400.00	1.15	195.66	6399.24	100.00	-20.08	19.69 S	25.64 E	32.33@	127.52	0.05
6500.00	1.12	185.85	6499.22	100.00	-22.01	21.63 S	25.27 E	33.26@	130.56	0.20
6600.00	1.00	159.09	6599.21	100.00	-23.81	23.42 S	25.48 E	34.61@	132.58	0.50
6700.00	0.97	153.00	6699.19	100.00	-25.38	24.99 S	26.18 E	36.19@	133.67	0.11
6800.00	0.97	138.40	6799.18	100.00	-26.79	26.37 S	27.12 E	37.83@	134.20	0.25
6900.00	1.02	153.17	6899.16	100.00	-28.23	27.80 S	28.09 E	39.52@	134.71	0.26
7000.00	0.73	174.62	6999.15	100.00	-29.66	29.23 S	28.55 E	40.86@	135.68	0.43
7100.00	0.66	169.62	7099.15	100.00	-30.87	30.43 S	28.71 E	41.84@	136.66	0.09
7200.00	0.81	179.14	7199.14	100.00	-32.14	31.70 S	28.83 E	42.85@	137.72	0.19
7300.00	0.76	202.92	7299.13	100.00	-33.46	33.02 S	28.58 E	43.67@	139.13	0.33
7400.00	1.00	204.63	7399.12	100.00	-34.85	34.42 S	27.96 E	44.35@	140.92	0.24
7500.00	1.07	213.96	7499.10	100.00	-36.40	35.99 S	27.07 E	45.04@	143.05	0.18
7600.00	1.24	209.74	7599.08	100.00	-38.10	37.71 S	26.01 E	45.81@	145.40	0.19
7700.00	1.44	215.47	7699.05	100.00	-40.04	39.67 S	24.75 E	46.75@	148.04	0.24
** TIE IN TO SCIENTIFIC DRILLING GYRO SURVEY AT 7791'MD.										
7791.00	1.59	207.49	7790.02	91.00	-42.08	41.72 S	23.50 E	47.88@	150.61	0.28
THE FOLLOWING AREA PATHFINDER MWD SURVEYS.										
7870.00	1.85	325.23	7869.00	79.00	-41.98	41.64 S	22.27 E	47.22@	151.87	3.73
7901.00	4.66	343.36	7899.95	31.00	-40.35	40.03 S	21.62 E	45.49@	151.62	9.54
7933.00	8.18	346.83	7931.74	32.00	-36.88	36.56 S	20.73 E	42.03@	150.45	11.06

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7964.00	11.61	347.52	7962.28	31.00	-31.67	31.37 S	19.55 E	36.96@	148.06	11.07
7996.00	14.25	348.57	7993.46	32.00	-24.64	24.36 S	18.08 E	30.34@	143.43	8.28
8027.00	17.06	350.22	8023.31	31.00	-16.39	16.14 S	16.55 E	23.12@	134.29	9.18
8059.00	20.05	351.75	8053.64	32.00	-6.31	6.08 S	14.96 E	16.15@	112.13	9.47
8090.00	22.42	351.62	8082.54	31.00	4.82	5.02 N	13.34 E	14.25@	69.36	7.65
8122.00	24.97	351.01	8111.84	32.00	17.56	17.74 N	11.39 E	21.08@	32.72	8.01
8153.00	27.35	349.54	8139.66	31.00	31.06	31.20 N	9.08 E	32.50@	16.22	7.96
8185.00	29.90	351.13	8167.75	32.00	46.21	46.32 N	6.51 E	46.77@	8.00	8.32
8216.00	32.62	351.47	8194.24	31.00	62.15	62.22 N	4.08 E	62.35@	3.75	8.79
8248.00	35.35	351.20	8220.78	32.00	79.87	79.90 N	1.39 E	79.91@	0.99	8.55
8279.00	38.16	352.83	8245.61	31.00	98.27	98.26 N	1.18 W	98.27@	359.31	9.59
8311.00	40.63	354.29	8270.34	32.00	118.48	118.44 N	3.45 W	118.49@	358.33	8.24
8342.00	43.44	356.45	8293.36	31.00	139.19	139.13 N	5.12 W	139.22@	357.89	10.19
8374.00	45.99	356.97	8316.10	32.00	161.68	161.60 N	6.41 W	161.73@	357.73	8.05
8405.00	49.77	357.13	8336.89	31.00	184.66	184.56 N	7.59 W	184.72@	357.65	12.20
8437.00	52.85	356.38	8356.89	32.00	209.61	209.50 N	9.01 W	209.69@	357.54	9.80
8468.00	56.10	356.11	8374.90	31.00	234.81	234.67 N	10.66 W	234.91@	357.40	10.51
8500.00	59.44	355.91	8391.96	32.00	261.83	261.67 N	12.54 W	261.97@	357.26	10.45
8531.00	62.78	355.58	8406.94	31.00	288.92	288.73 N	14.56 W	289.10@	357.11	10.82
8563.00	66.21	355.23	8420.72	32.00	317.74	317.52 N	16.87 W	317.97@	356.96	10.76
8594.00	68.68	354.01	8432.61	31.00	346.28	346.02 N	19.56 W	346.57@	356.76	8.76
8626.00	71.49	354.00	8443.50	32.00	376.24	375.94 N	22.70 W	376.62@	356.54	8.78
8657.00	74.39	353.49	8452.60	31.00	405.74	405.39 N	25.93 W	406.22@	356.34	9.49
8689.00	77.91	354.06	8460.26	32.00	436.67	436.27 N	29.30 W	437.26@	356.16	11.13
8721.00	81.07	354.89	8466.09	32.00	468.03	467.59 N	32.33 W	468.70@	356.05	10.20
8752.00	82.66	354.97	8470.48	31.00	498.63	498.15 N	35.04 W	499.38@	355.98	5.14
8784.00	83.19	355.50	8474.42	32.00	530.32	529.80 N	37.68 W	531.14@	355.93	2.33
8815.00	86.00	354.79	8477.34	31.00	561.10	560.55 N	40.29 W	561.99@	355.89	9.35
8841.00	88.55	355.52	8478.58	26.00	587.01	586.42 N	42.48 W	587.96@	355.86	10.20
8872.00	89.78	355.39	8479.03	31.00	617.94	617.32 N	44.94 W	618.96@	355.84	3.99

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Survey Report

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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)
8935.00	90.48	354.66	8478.89	63.00	680.78	680.08 N	50.40 W	681.95@	355.76	1.60
9030.00	89.60	355.45	8478.82	95.00	775.54	774.73 N	58.59 W	776.94@	355.68	1.25
9124.00	89.34	356.52	8479.69	94.00	869.39	868.49 N	65.17 W	870.93@	355.71	1.17
9219.00	88.29	357.62	8481.65	95.00	964.31	963.34 N	70.03 W	965.89@	355.84	1.60
9314.00	88.55	359.59	8484.27	95.00	1059.26	1058.28 N	72.34 W	1060.75@	356.09	2.09
9408.00	89.25	0.60	8486.08	94.00	1153.23	1152.26 N	72.18 W	1154.51@	356.42	1.31
9503.00	90.40	1.27	8486.37	95.00	1248.18	1247.24 N	70.63 W	1249.24@	356.76	1.40
9597.00	91.89	0.88	8484.49	94.00	1342.10	1341.20 N	68.87 W	1342.97@	357.06	1.64
9692.00	92.24	0.14	8481.07	95.00	1437.01	1436.14 N	68.02 W	1437.75@	357.29	0.86
9787.00	92.33	1.28	8477.28	95.00	1531.90	1531.05 N	66.85 W	1532.51@	357.50	1.20
9881.00	89.60	1.76	8475.70	94.00	1625.79	1625.00 N	64.36 W	1626.27@	357.73	2.95
9976.00	90.13	1.71	8475.92	95.00	1720.69	1719.95 N	61.48 W	1721.05@	357.95	0.56
10070.00	89.52	0.61	8476.21	94.00	1814.63	1813.93 N	59.58 W	1814.91@	358.12	1.34
10165.00	89.78	359.23	8476.79	95.00	1909.62	1908.93 N	59.71 W	1909.86@	358.21	1.48
10259.00	89.43	358.42	8477.44	94.00	2003.61	2002.90 N	61.64 W	2003.85@	358.24	0.94
10353.00	89.60	359.96	8478.23	94.00	2097.61	2096.89 N	62.96 W	2097.83@	358.28	1.65
10448.00	90.84	359.72	8477.87	95.00	2192.60	2191.88 N	63.23 W	2192.80@	358.35	1.33
10543.00	92.33	358.52	8475.24	95.00	2287.56	2286.83 N	64.69 W	2287.75@	358.38	2.01
10637.00	90.84	359.01	8472.64	94.00	2381.52	2380.77 N	66.71 W	2381.71@	358.39	1.67
10731.00	89.16	359.78	8472.64	94.00	2475.51	2474.76 N	67.71 W	2475.69@	358.43	1.97
10826.00	89.78	359.04	8473.52	95.00	2570.51	2569.75 N	68.68 W	2570.67@	358.47	1.02
10920.00	90.75	358.32	8473.08	94.00	2664.50	2663.73 N	70.85 W	2664.67@	358.48	1.29
11015.00	89.08	358.81	8473.22	95.00	2759.49	2758.69 N	73.23 W	2759.66@	358.48	1.83
11109.00	88.64	0.14	8475.09	94.00	2853.47	2852.67 N	74.09 W	2853.63@	358.51	1.49
11204.00	89.34	359.23	8476.77	95.00	2948.45	2947.65 N	74.61 W	2948.59@	358.55	1.21
11298.00	90.31	358.91	8477.06	94.00	3042.45	3041.63 N	76.14 W	3042.59@	358.57	1.09
11393.00	88.99	359.58	8477.64	95.00	3137.44	3136.62 N	77.39 W	3137.58@	358.59	1.56
11487.00	86.79	0.81	8481.10	94.00	3231.35	3230.55 N	77.07 W	3231.47@	358.63	2.68
11582.00	87.41	0.67	8485.90	95.00	3326.19	3325.42 N	75.84 W	3326.29@	358.69	0.67
11677.00	88.46	0.67	8489.33	95.00	3421.10	3420.35 N	74.73 W	3421.17@	358.75	1.11

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NEW MEXICO
RIG:H&P 416

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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)
11771.00	90.22	0.24	8490.41	94.00	3515.06	3514.34 N	73.99 W	3515.12@	358.79	1.93
11866.00	89.34	358.87	8490.77	95.00	3610.05	3609.33 N	74.73 W	3610.10@	358.81	1.71
11961.00	89.69	0.76	8491.58	95.00	3705.04	3704.32 N	75.03 W	3705.08@	358.84	2.02
12055.00	89.43	0.57	8492.30	94.00	3799.00	3798.31 N	73.94 W	3799.03@	358.88	0.34
12150.00	90.75	0.06	8492.15	95.00	3893.98	3893.31 N	73.42 W	3894.00@	358.92	1.49
12245.00	90.66	358.92	8490.98	95.00	3988.97	3988.30 N	74.27 W	3988.99@	358.93	1.20
12339.00	91.63	358.41	8489.10	94.00	4082.94	4082.25 N	76.45 W	4082.97@	358.93	1.17
12434.00	91.01	359.95	8486.92	95.00	4177.91	4177.21 N	77.81 W	4177.94@	358.93	1.75
12528.00	90.22	359.77	8485.91	94.00	4271.90	4271.21 N	78.04 W	4271.92@	358.95	0.86
12623.00	90.31	358.87	8485.47	95.00	4366.90	4366.20 N	79.17 W	4366.92@	358.96	0.95
12717.00	90.57	358.61	8484.74	94.00	4460.89	4460.17 N	81.24 W	4460.91@	358.96	0.39
12812.00	91.10	358.14	8483.36	95.00	4555.88	4555.12 N	83.93 W	4555.90@	358.94	0.75
12907.00	90.04	359.14	8482.42	95.00	4650.86	4650.09 N	86.19 W	4650.89@	358.94	1.53
13001.00	89.16	0.18	8483.07	94.00	4744.86	4744.08 N	86.74 W	4744.88@	358.95	1.45
13096.00	89.43	359.76	8484.24	95.00	4839.84	4839.08 N	86.79 W	4839.85@	358.97	0.53
13190.00	90.75	359.57	8484.09	94.00	4933.83	4933.07 N	87.34 W	4933.85@	358.99	1.42
13285.00	91.63	359.14	8482.12	95.00	5028.81	5028.04 N	88.41 W	5028.82@	358.99	1.03
13380.00	89.78	0.29	8480.95	95.00	5123.79	5123.03 N	88.88 W	5123.80@	359.01	2.29
13474.00	90.40	0.24	8480.80	94.00	5217.77	5217.03 N	88.45 W	5217.78@	359.03	0.66
13563.00	91.63	0.00	8479.23	89.00	5306.74	5306.01 N	88.26 W	5306.75@	359.05	1.41
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 13617'MD.										
13617.00	91.63	0.00	8477.69	54.00	5360.71	5359.99 N	88.26 W	5360.72@	359.06	0.00

** 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.:	NORTH PURE GOLD 8 FEDERAL	15H	
WELL LOCATION:	EDDY COUNTY, NM		
COUNTY / STATE / COUNTRY:	EDDY	NEW MEXICO	USA
RIG:	H&P 416		
API WELL No:	30-015-38282		
JOB No:	700001379 WT-WT		
P.O. / AFE No.	155785		
DIRECTIONAL COMPANY:	PES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.47	LWD Calculated:	7.46
		Agreed Upon:	7.46
X =	708453.043000	Feet	Y = 477136.194000
			Feet
SITE LATITUDE:	32.310561 N	SITE LONGITUDE:	103.792402 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	359.62°		
KELLY BUSHING ELEVATION:	25'		
ALTITUDE:	3340'	Feet	WATER DEPTH: NA
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	7791'		
DRIFT ANGLE:	1.59°		
DRIFT DIRECTION:	207.49°		
TRUE VERTICAL DEPTH:	7790.02		
VERTICAL SECTION:	-41.86		
RECTANGULAR COORDINATE (N / S) :	-41.72		
RECTANGULAR COORDINATE (E / W) :	23.5		
CLOSURE DISTANCE / DIRECTION:	47.88'	150.61°	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	SCIENTIFIC DRILLING		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH 7850'	TOTAL DEPTH: 13623'
KICKOFF ANGLE 1.59°	MAX ANGLE: 90°

PES Engineers:

**Signature of both field engineers required if applicable

Directional Driller:

DATE: 13-Jan-2011



A Schlumberger Company

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

DEVON ENERGY
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NEW MEXICO
Rig:HP 416

Wed Jan 12 13:50:53 2011

Coordinates

Latitude: 32.310561 N (32 deg. 18 min. 38.0201 sec.)
Longitude: 103.792402 W (-103 deg. 47 min. 32.6487 sec.)
Elevation: 3365.00 feet.
Calculation Date: Jan/12/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.2396 degrees
Total Magnetic Field: 0.48687 gauss
Magnetic Declination: 7.745435 degrees
Horizontal Intensity: 0.241669 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.745435 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 708453.0430 feet
Y: 477136.1940 feet
True to Grid: (convergence) -0.289138 degrees
Magnetic to Grid: 7.456297 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.456297 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

DEVON ENERGY
NORTH PURE GOLD 8 FEDERAL #15H
EDDY COUNTY, NEW MEXICO
Rig:HP 416

Field calculated

Thu Jan-13 13:34:22 2011

Coordinates

Latitude: 32.310561 N (32 deg. 18 min. 38.0201 sec.)
Longitude: 103.792402 W (-103 deg. 47 min. 32.6487 sec.)
Elevation: 3365.00 feet.
Calculation Date: Jan/13/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.2395 degrees
Total Magnetic Field: 0.48687 gauss
Magnetic Declination: 7.745100 degrees
Horizontal Intensity: 0.241668 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.745100 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 708453.0430 feet
Y: 477136.1940 feet
True to Grid: (convergence) -0.289138 degrees
Magnetic to Grid: 7.455962 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.455962 Degs.

Pathfinder

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



January 27, 2011

Devon Energy
20 N. Broadway
Oklahoma City, OK

RE: Devon Energy
North Pure Gold 8 Federal #15H
API: 30-015-38282
Eddy County, NM
RIG: H & P 416
FIELD: Los Medanos; Bone Spring
PES FILE NO.: 700001379-WT-WT

SUR: A -17-23s - 31e, 440/N & 330/E
BHL: A - 8 - 23s - 31e, 360/N & 418/E
API # 30-015-38282

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