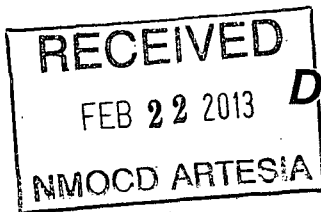




A Schlumberger Company



DIRECTIONAL SURVEY REPORT

15-38365

XTO ENERGY

NASH UNIT #51H

EDDY COUNTY, NEW MEXICO

PREPARED BY: MARCUS MITCHAM

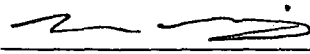
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) CHARLIE SANDIFER
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 7/31/12 TO 8/14/12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

XTO ENERGY INC.
NASH UNIT #51H
EDDY COUNTY, NM
RIG: PIONEER 33

9. SURVEY CERTIFIED FROM: 6,364 TO 11,458 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4,810.25 FEET ON A BEARING OF 89.47 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 11,522 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



MARCUS MITCHAM
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 07/31/2012
Date Completed: 08/14/2012

XTO ENERGY, INC.
NASH UNIT #51H API# 30-015-38365
EDDY COUNTY, NM
Rig: PIONEER 33
PathFinder Office Supervisor: JUAN ALCOCER
PathFinder Field Engineers: C. SANDIFER
R. DIAZ

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.17.57.9543 N LON: 103.55.42.5417 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 625092.1000 Y: 472886.3000
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.40° EAST TO GRID
Vertical Section Plane: 89.87
Survey Vert. Reference: 32.00' Rotary Table To Ground
Altitude: 3016.50' Ground To MSL

Measured Depth	11522.00	(feet)
Inclination	89.78	(deg)
Azimuth	86.63	(deg)
True Vertical Depth	7026.89	(feet)
Vertical Section	4810.14	(feet)
Survey X cord	629902.15	(feet)
Survey Y cord	472930.45	(feet)
Survey Lat	32.29950223 N	(deg)
Survey Lon	103.91291628 W	(deg)
Rectangular Corr. N/S	44.15 N	(feet)
Rectangular Corr. E/W	4810.05 E	(feet)
Closure Distance	4810.25	(feet)
Direction of Closure	89.47	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

XTO ENERGY, INC.
NASH UNIT #51H API# 30-015-38365
EDDY COUNTY, NM
Rig: PIONEER 33
PathFinder Office Supervisor: JUAN ALCOCER
PathFinder Field Engineers: C.SANDIFER
R. DIAZ

Page 01/08
Tie-in Date: 07/31/2012
Date Completed: 08/14/2012

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.17.57.9543 N LON: 103.55.42.5417 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 625092.1000 Y: 472886.3000
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.40° EAST TO GRID
Vertical Section Plane: 89.87
Survey Vert. Reference: 32.00' Rotary Table To Ground
Altitude: 3016.50' Ground To MSL

Survey Calculations by RX5 V6.04A 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 VAUGHN ENERGY SERVICES GYRO SURVEYS										
100.00	0.24	137.46	100.00	0.00	0.17	0.14 S	0.17 E	0.22@	129.90	0.00
200.00	0.02	36.92	200.00	100.00	0.32	0.28 S	0.32 E	0.42@	131.27	0.24
300.00	0.52	252.17	300.00	100.00	-0.10	0.40 S	0.10 W	0.42@	194.24	0.54
400.00	0.42	235.39	400.00	100.00	-0.84	0.75 S	0.84 W	1.12@	228.05	0.17
500.00	0.60	245.93	499.99	100.00	-1.62	1.17 S	1.62 W	2.00@	234.01	0.20
600.00	0.34	229.86	599.99	100.00	-2.32	1.58 S	2.32 W	2.81@	235.78	0.29
700.00	0.44	233.65	699.99	100.00	-2.86	2.00 S	2.86 W	3.49@	235.04	0.10
800.00	0.39	130.95	799.98	100.00	-2.91	2.45 S	2.91 W	3.80@	229.92	0.65
900.00	0.37	234.42	899.98	100.00	-2.92	2.86 S	2.91 W	4.08@	225.55	0.60
1000.00	0.61	245.45	999.98	100.00	-3.67	3.27 S	3.66 W	4.91@	228.25	0.26
1100.00	0.85	281.88	1099.97	100.00	-4.88	3.34 S	4.87 W	5.90@	235.59	0.51
1200.00	1.28	282.41	1199.95	100.00	-6.69	2.94 S	6.69 W	7.31@	246.24	0.43
1300.00	1.22	278.55	1299.93	100.00	-8.84	2.55 S	8.83 W	9.19@	253.92	0.10
1400.00	0.89	288.43	1399.91	100.00	-10.63	2.14 S	10.62 W	10.84@	258.60	0.38
1500.00	0.89	283.26	1499.90	100.00	-12.12	1.72 S	12.11 W	12.24@	261.93	0.08
1600.00	0.78	292.13	1599.89	100.00	-13.50	1.28 S	13.50 W	13.56@	264.57	0.17
1700.00	0.69	327.93	1699.88	100.00	-14.45	0.52 S	14.45 W	14.46@	267.95	0.46
1800.00	0.62	357.42	1799.88	100.00	-14.79	0.53 N	14.79 W	14.80@	272.07	0.34
1900.00	1.06	43.25	1899.87	100.00	-14.18	1.75 N	14.19 W	14.29@	277.03	0.77
2000.00	1.26	44.66	1999.85	100.00	-12.77	3.20 N	12.78 W	13.17@	284.08	0.20
2100.00	0.97	48.52	2099.83	100.00	-11.36	4.55 N	11.37 W	12.25@	291.79	0.30
2200.00	0.59	40.50	2199.82	100.00	-10.39	5.50 N	10.40 W	11.77@	297.86	0.39
2300.00	0.11	330.27	2299.82	100.00	-10.10	5.97 N	10.12 W	11.75@	300.56	0.56
2400.00	0.34	204.03	2399.82	100.00	-10.27	5.79 N	10.29 W	11.80@	299.36	0.41
2500.00	1.76	157.83	2499.80	100.00	-9.82	4.09 N	9.83 W	10.64@	292.61	1.54

PathFinder Energy Services, Inc.

Survey Report

XTO ENERGY, INC.
 NASH UNIT #51H API# 30-015-38365
 EDDY COUNTY, NM
 RIG:PIONEER 33

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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)
2600.00	2.21	155.32	2599.74	100.00	-8.44	0.92 N	8.44 W	8.49@	276.21	0.46
2700.00	1.59	154.52	2699.68	100.00	-7.04	2.09 S	7.04 W	7.34@	253.50	0.62
2800.00	1.59	160.08	2799.64	100.00	-5.98	4.64 S	5.97 W	7.56@	232.13	0.15
2900.00	1.64	156.39	2899.60	100.00	-4.94	7.26 S	4.92 W	8.77@	214.16	0.12
3000.00	1.61	153.71	2999.56	100.00	-3.75	9.83 S	3.73 W	10.51@	200.78	0.08
3100.00	0.76	161.45	3099.54	100.00	-2.92	11.72 S	2.90 W	12.07@	193.88	0.86
3200.00	0.31	203.63	3199.54	100.00	-2.82	12.59 S	2.79 W	12.90@	192.51	0.57
3300.00	0.41	225.18	3299.53	100.00	-3.19	13.09 S	3.16 W	13.47@	193.55	0.17
3400.00	0.28	239.66	3399.53	100.00	-3.65	13.47 S	3.62 W	13.95@	195.04	0.16
3500.00	0.31	260.68	3499.53	100.00	-4.13	13.64 S	4.10 W	14.24@	196.73	0.11
3600.00	0.14	258.64	3599.53	100.00	-4.52	13.70 S	4.48 W	14.42@	198.12	0.17
3700.00	0.20	289.40	3699.53	100.00	-4.80	13.67 S	4.77 W	14.48@	199.23	0.11
3800.00	0.12	271.06	3799.53	100.00	-5.07	13.61 S	5.04 W	14.51@	200.31	0.09
3900.00	0.05	352.64	3899.53	100.00	-5.18	13.57 S	5.15 W	14.51@	200.78	0.12
4000.00	0.09	169.76	3999.53	100.00	-5.17	13.60 S	5.14 W	14.54@	200.71	0.14
4100.00	0.17	336.34	4099.53	100.00	-5.22	13.54 S	5.19 W	14.50@	200.96	0.26
4200.00	0.10	357.48	4199.53	100.00	-5.28	13.32 S	5.25 W	14.32@	201.51	0.09
4300.00	0.16	281.68	4299.53	100.00	-5.42	13.20 S	5.39 W	14.26@	202.21	0.17
4400.00	0.09	314.39	4399.53	100.00	-5.61	13.12 S	5.58 W	14.26@	203.05	0.10
4500.00	0.07	336.67	4499.53	100.00	-5.69	13.01 S	5.66 W	14.19@	203.53	0.04
4600.00	0.21	336.41	4599.53	100.00	-5.79	12.78 S	5.76 W	14.02@	204.26	0.14
4700.00	0.12	308.64	4699.53	100.00	-5.94	12.55 S	5.92 W	13.88@	205.24	0.12
4800.00	0.20	299.37	4799.53	100.00	-6.18	12.40 S	6.15 W	13.84@	206.38	0.08
4900.00	0.04	264.88	4899.53	100.00	-6.36	12.32 S	6.34 W	13.85@	207.22	0.17
5000.00	0.11	270.13	4999.53	100.00	-6.50	12.32 S	6.47 W	13.91@	207.70	0.07
5100.00	0.17	285.76	5099.53	100.00	-6.73	12.28 S	6.71 W	13.99@	208.64	0.07

PathFinder Energy Services, Inc.

Survey Report

XTO ENERGY, INC.
 NASH UNIT #51H API# 30-015-38365
 EDDY COUNTY, NM
 RIG: PIONEER 33

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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)
5200.00	0.18	261.67	5199.53	100.00	-7.03	12.26 S	7.00 W	14.12@	209.74	0.07
5300.00	0.11	172.60	5299.53	100.00	-7.18	12.38 S	7.15 W	14.30@	210.00	0.21
5400.00	0.13	213.33	5399.53	100.00	-7.23	12.57 S	7.20 W	14.48@	209.79	0.09
5500.00	0.13	204.71	5499.53	100.00	-7.34	12.77 S	7.31 W	14.71@	209.78	0.02
5600.00	0.23	243.19	5599.53	100.00	-7.56	12.96 S	7.53 W	14.99@	210.17	0.15
5700.00	0.14	216.01	5699.52	100.00	-7.81	13.15 S	7.78 W	15.28@	210.62	0.12
5800.00	0.28	244.57	5799.52	100.00	-8.11	13.35 S	8.08 W	15.61@	211.17	0.17
5900.00	0.32	230.53	5899.52	100.00	-8.54	13.64 S	8.51 W	16.08@	211.98	0.08
6000.00	0.23	188.31	5999.52	100.00	-8.79	14.01 S	8.76 W	16.52@	212.00	0.21
6100.00	0.08	159.51	6099.52	100.00	-8.79	14.28 S	8.76 W	16.75@	211.54	0.16
6200.00	0.19	202.51	6199.52	100.00	-8.83	14.50 S	8.80 W	16.96@	211.27	0.14
** TIED INTO VAUGHN ENERGY SERVICES GYRO SURVEY AT 6300'MD										
6300.00	0.26	207.53	6299.52	100.00	-9.00	14.85 S	8.97 W	17.35@	211.13	0.07
THE FOLLOWING ARE PATHFINDER MWD SURVEYS										
6364.00	2.37	120.87	6363.50	64.00	-7.94	15.66 S	7.90 W	17.54@	206.78	3.70
6395.00	6.51	121.48	6394.40	31.00	-5.89	16.90 S	5.85 W	17.89@	199.09	13.36
6426.00	10.90	118.14	6425.04	31.00	-1.81	19.21 S	1.77 W	19.29@	185.25	14.25
6457.00	15.04	114.54	6455.24	31.00	4.43	22.26 S	4.48 E	22.71@	168.62	13.60
6488.00	18.91	110.32	6484.89	31.00	12.79	25.68 S	12.85 E	28.71@	153.41	13.09
6519.00	22.07	106.54	6513.92	31.00	23.08	29.08 S	23.15 E	37.17@	141.48	11.05
6550.00	24.71	103.29	6542.37	31.00	34.97	32.23 S	35.04 E	47.61@	132.61	9.48
6581.00	27.35	100.21	6570.23	31.00	48.28	34.98 S	48.36 E	59.68@	125.88	9.56
6612.00	30.07	96.61	6597.42	31.00	63.00	37.14 S	63.09 E	73.20@	120.48	10.39
6643.00	32.01	93.90	6623.98	31.00	78.91	38.59 S	79.00 E	87.92@	116.04	7.71
6674.00	34.03	90.24	6649.97	31.00	95.78	39.19 S	95.87 E	103.57@	112.23	9.15
6705.00	36.14	89.51	6675.34	31.00	113.60	39.14 S	113.69 E	120.24@	109.00	6.94
6736.00	38.43	84.46	6700.01	31.00	132.34	38.14 S	132.43 E	137.81@	106.06	12.32

PathFinder Energy Services, Inc.

Survey Report

XTO ENERGY, INC.
 NASH UNIT #51H API# 30-015-38365
 EDDY COUNTY, NM
 RIG: PIONEER 33

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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)
6768.00	41.15	82.19	6724.59	32.00	152.68	35.74 S	152.76 E	156.89@	103.17	9.63
6799.00	43.88	80.14	6747.44	31.00	173.38	32.52 S	173.46 E	176.48@	100.62	9.87
6830.00	46.43	79.92	6769.30	31.00	195.04	28.71 S	195.10 E	197.20@	98.37	8.24
6861.00	48.63	80.38	6790.23	31.00	217.57	24.80 S	217.63 E	219.04@	96.50	7.18
6892.00	50.12	81.00	6810.42	31.00	240.80	21.00 S	240.85 E	241.76@	94.98	5.04
6923.00	51.97	81.84	6829.90	31.00	264.65	17.40 S	264.69 E	265.26@	93.76	6.33
6954.00	53.73	80.52	6848.63	31.00	289.07	13.61 S	289.10 E	289.42@	92.70	6.61
6985.00	55.66	81.72	6866.54	31.00	314.07	9.71 S	314.09 E	314.24@	91.77	6.98
7016.00	57.07	83.02	6883.71	31.00	339.66	6.28 S	339.67 E	339.73@	91.06	5.73
7047.00	58.30	84.44	6900.28	31.00	365.71	3.43 S	365.71 E	365.73@	90.54	5.54
7078.00	59.62	85.28	6916.27	31.00	392.16	1.05 S	392.17 E	392.17@	90.15	4.85
7109.00	61.11	86.01	6931.60	31.00	419.04	1.00 N	419.03 E	419.04@	89.86	5.22
7140.00	63.58	86.42	6945.98	31.00	446.44	2.81 N	446.43 E	446.44@	89.64	8.05
7170.00	66.65	85.71	6958.61	30.00	473.59	4.68 N	473.58 E	473.60@	89.43	10.46
7202.00	70.70	85.11	6970.24	32.00	503.30	7.06 N	503.28 E	503.33@	89.20	12.78
7233.00	74.39	84.58	6979.54	31.00	532.75	9.72 N	532.73 E	532.82@	88.95	12.02
7371.00	86.17	92.55	7002.83	138.00	668.39	12.95 N	668.36 E	668.48@	88.89	10.25
7466.00	89.96	92.36	7006.04	95.00	763.22	8.89 N	763.20 E	763.25@	89.33	3.99
7561.00	94.70	92.13	7002.18	95.00	858.03	5.17 N	858.02 E	858.04@	89.65	4.99
7656.00	96.55	89.43	6992.87	95.00	952.55	3.88 N	952.54 E	952.55@	89.77	3.43
7751.00	97.78	88.88	6981.02	95.00	1046.80	5.27 N	1046.79 E	1046.80@	89.71	1.42
7846.00	96.73	87.63	6969.02	95.00	1140.99	8.14 N	1140.98 E	1141.01@	89.59	1.71
7941.00	93.56	87.74	6960.50	95.00	1235.53	11.96 N	1235.51 E	1235.57@	89.45	3.34
8036.00	93.03	88.48	6955.04	95.00	1330.33	15.09 N	1330.30 E	1330.38@	89.35	0.96
8131.00	88.90	89.72	6953.44	95.00	1425.28	16.58 N	1425.25 E	1425.35@	89.33	4.54
8225.00	89.78	91.53	6954.52	94.00	1519.27	15.55 N	1519.23 E	1519.31@	89.41	2.14

PathFinder Energy Services, Inc.

Survey Report

XTO ENERGY, INC.
 NASH UNIT #51H API# 30-015-38365
 EDDY COUNTY, NM
 RIG: PIONEER 33

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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)
8320.00	86.17	87.03	6957.88	95.00	1614.16	16.74 N	1614.13 E	1614.21@	89.41	6.07
8415.00	84.94	89.70	6965.25	95.00	1708.83	19.45 N	1708.79 E	1708.90@	89.35	3.09
8510.00	84.59	90.41	6973.91	95.00	1803.43	19.36 N	1803.39 E	1803.50@	89.39	0.83
8605.00	85.65	88.87	6982.00	95.00	1898.08	19.95 N	1898.04 E	1898.15@	89.40	1.96
8636.00	85.56	88.61	6984.37	31.00	1928.99	20.63 N	1928.95 E	1929.06@	89.39	0.89
8700.00	87.32	90.25	6988.35	64.00	1992.86	21.27 N	1992.81 E	1992.93@	89.39	3.75
8731.00	90.40	91.95	6988.96	31.00	2023.84	20.67 N	2023.80 E	2023.90@	89.41	11.35
8763.00	90.13	91.87	6988.81	32.00	2055.82	19.60 N	2055.78 E	2055.87@	89.45	0.88
8795.00	87.23	90.47	6989.55	32.00	2087.80	18.95 N	2087.76 E	2087.85@	89.48	10.06
8826.00	86.88	90.01	6991.14	31.00	2118.76	18.82 N	2118.72 E	2118.80@	89.49	1.86
8858.00	87.58	89.86	6992.69	32.00	2150.72	18.86 N	2150.68 E	2150.76@	89.50	2.24
8889.00	88.72	90.36	6993.69	31.00	2181.70	18.80 N	2181.66 E	2181.75@	89.51	4.01
8921.00	89.87	91.10	6994.09	32.00	2213.69	18.39 N	2213.66 E	2213.74@	89.52	4.27
8953.00	89.87	90.87	6994.16	32.00	2245.69	17.84 N	2245.65 E	2245.72@	89.54	0.72
8985.00	89.78	90.60	6994.26	32.00	2277.68	17.43 N	2277.65 E	2277.72@	89.56	0.89
9014.00	90.04	89.76	6994.30	29.00	2306.68	17.34 N	2306.65 E	2306.72@	89.57	3.03
9046.00	91.10	89.50	6993.98	32.00	2338.68	17.55 N	2338.65 E	2338.71@	89.57	3.41
9077.00	90.66	88.89	6993.51	31.00	2369.68	17.98 N	2369.64 E	2369.71@	89.57	2.43
9109.00	90.48	88.15	6993.19	32.00	2401.66	18.81 N	2401.63 E	2401.70@	89.55	2.38
9140.00	89.34	88.59	6993.24	31.00	2432.65	19.69 N	2432.62 E	2432.69@	89.54	3.94
9172.00	88.99	88.82	6993.70	32.00	2464.64	20.41 N	2464.60 E	2464.69@	89.53	1.31
9204.00	89.96	89.84	6994.00	32.00	2496.64	20.79 N	2496.60 E	2496.69@	89.52	4.40
9235.00	90.66	91.93	6993.83	31.00	2527.63	20.31 N	2527.59 E	2527.67@	89.54	7.11
9268.00	89.16	92.83	6993.88	33.00	2560.60	18.94 N	2560.56 E	2560.63@	89.58	5.30
9299.00	87.93	93.85	6994.67	31.00	2591.53	17.13 N	2591.50 E	2591.56@	89.62	5.15
9331.00	86.44	93.25	6996.24	32.00	2623.43	15.15 N	2623.40 E	2623.44@	89.67	5.02

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EDDY COUNTY, NM
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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)
9363.00	87.41	92.97	6997.96	32.00	2655.33	13.42 N	2655.30 E	2655.34@	89.71	3.15
9394.00	90.66	93.68	6998.48	31.00	2686.26	11.62 N	2686.24 E	2686.27@	89.75	10.73
9426.00	91.10	93.36	6997.99	32.00	2718.19	9.66 N	2718.18 E	2718.20@	89.80	1.70
9458.00	90.92	93.08	6997.42	32.00	2750.13	7.86 N	2750.12 E	2750.14@	89.84	1.04
9489.00	88.02	91.67	6997.71	31.00	2781.10	6.58 N	2781.09 E	2781.10@	89.86	10.40
9521.00	86.53	90.45	6999.23	32.00	2813.06	5.98 N	2813.05 E	2813.06@	89.88	6.01
9553.00	86.53	89.79	7001.17	32.00	2845.00	5.92 N	2844.99 E	2845.00@	89.88	2.06
9584.00	87.05	89.73	7002.90	31.00	2875.95	6.05 N	2875.94 E	2875.95@	89.88	1.69
9616.00	86.09	89.87	7004.82	32.00	2907.89	6.16 N	2907.88 E	2907.89@	89.88	3.03
9648.00	84.68	89.28	7007.39	32.00	2939.78	6.39 N	2939.78 E	2939.78@	89.88	4.77
9679.00	83.80	88.48	7010.50	31.00	2970.62	7.00 N	2970.61 E	2970.62@	89.87	3.83
9711.00	83.54	88.40	7014.03	32.00	3002.42	7.86 N	3002.41 E	3002.42@	89.85	0.85
9743.00	83.71	88.09	7017.59	32.00	3034.21	8.84 N	3034.19 E	3034.21@	89.83	1.10
9775.00	84.50	88.01	7020.87	32.00	3066.02	9.92 N	3066.01 E	3066.02@	89.81	2.48
9806.00	85.12	88.69	7023.68	31.00	3096.88	10.81 N	3096.87 E	3096.89@	89.80	2.96
9837.00	86.61	89.11	7025.91	31.00	3127.80	11.40 N	3127.78 E	3127.80@	89.79	4.99
9869.00	89.25	89.84	7027.07	32.00	3159.77	11.70 N	3159.75 E	3159.78@	89.79	8.56
9901.00	89.52	89.21	7027.41	32.00	3191.77	11.96 N	3191.75 E	3191.77@	89.79	2.14
9932.00	86.17	86.12	7028.58	31.00	3222.72	13.22 N	3222.70 E	3222.72@	89.76	14.70
9964.00	87.32	85.91	7030.39	32.00	3254.59	15.44 N	3254.57 E	3254.60@	89.73	3.65
9995.00	88.72	85.94	7031.46	31.00	3285.50	17.64 N	3285.47 E	3285.52@	89.69	4.52
10027.00	89.08	85.68	7032.08	32.00	3317.41	19.98 N	3317.38 E	3317.44@	89.65	1.39
10058.00	88.20	84.69	7032.81	31.00	3348.30	22.58 N	3348.26 E	3348.33@	89.61	4.27
10090.00	86.88	83.50	7034.19	32.00	3380.11	25.87 N	3380.06 E	3380.16@	89.56	5.55
10122.00	87.58	84.46	7035.73	32.00	3411.90	29.22 N	3411.84 E	3411.97@	89.51	3.71
10153.00	87.93	84.35	7036.95	31.00	3442.74	32.24 N	3442.67 E	3442.82@	89.46	1.18

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10185.00	88.99	85.30	7037.81	32.00	3474.60	35.13 N	3474.53 E	3474.71@	89.42	4.45
10216.00	91.10	86.25	7037.78	31.00	3505.52	37.41 N	3505.44 E	3505.64@	89.39	7.46
10248.00	91.98	87.58	7036.92	32.00	3537.46	39.13 N	3537.38 E	3537.60@	89.37	4.98
10280.00	92.24	88.24	7035.75	32.00	3569.42	40.30 N	3569.34 E	3569.57@	89.35	2.22
10311.00	92.33	88.05	7034.51	31.00	3600.38	41.30 N	3600.30 E	3600.54@	89.34	0.68
10343.00	92.59	88.59	7033.14	32.00	3632.34	42.24 N	3632.26 E	3632.50@	89.33	1.87
10374.00	92.07	89.82	7031.88	31.00	3663.31	42.67 N	3663.23 E	3663.48@	89.33	4.30
10406.00	90.22	90.05	7031.24	32.00	3695.31	42.71 N	3695.22 E	3695.47@	89.34	5.83
10438.00	87.49	89.26	7031.88	32.00	3727.30	42.90 N	3727.21 E	3727.46@	89.34	8.88
10469.00	86.26	89.79	7033.57	31.00	3758.25	43.15 N	3758.16 E	3758.41@	89.34	4.32
10501.00	86.35	90.07	7035.63	32.00	3790.18	43.19 N	3790.09 E	3790.34@	89.35	0.92
10533.00	85.65	89.47	7037.86	32.00	3822.10	43.32 N	3822.02 E	3822.26@	89.35	2.88
10564.00	86.61	90.75	7039.95	31.00	3853.03	43.26 N	3852.94 E	3853.19@	89.36	5.15
10596.00	87.93	91.75	7041.48	32.00	3884.99	42.56 N	3884.90 E	3885.13@	89.37	5.17
10627.00	90.57	92.59	7041.88	31.00	3915.96	41.39 N	3915.87 E	3916.09@	89.39	8.94
10659.00	92.15	92.53	7041.12	32.00	3947.91	39.96 N	3947.83 E	3948.03@	89.42	4.94
10690.00	93.21	92.98	7039.67	31.00	3978.84	38.47 N	3978.76 E	3978.95@	89.45	3.71
10722.00	92.95	92.56	7037.95	32.00	4010.75	36.93 N	4010.68 E	4010.85@	89.47	1.54
10754.00	92.42	92.29	7036.46	32.00	4042.68	35.58 N	4042.61 E	4042.77@	89.50	1.86
10785.00	91.45	91.87	7035.41	31.00	4073.64	34.45 N	4073.57 E	4073.72@	89.52	3.41
10817.00	91.19	91.76	7034.67	32.00	4105.61	33.44 N	4105.55 E	4105.68@	89.53	0.88
10849.00	91.10	91.25	7034.03	32.00	4137.59	32.60 N	4137.53 E	4137.66@	89.55	1.62
10880.00	91.19	91.41	7033.41	31.00	4168.58	31.88 N	4168.52 E	4168.64@	89.56	0.59
10912.00	90.84	91.53	7032.85	32.00	4200.56	31.06 N	4200.50 E	4200.62@	89.58	1.16
10944.00	90.92	91.44	7032.35	32.00	4232.54	30.23 N	4232.49 E	4232.59@	89.59	0.38
10975.00	91.01	91.37	7031.83	31.00	4263.53	29.47 N	4263.47 E	4263.57@	89.60	0.37

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11007.00	89.08	89.55	7031.81	32.00	4295.52	29.21 N	4295.47 E	4295.57@	89.61	8.29
11038.00	89.43	88.88	7032.21	31.00	4326.52	29.64 N	4326.46 E	4326.56@	89.61	2.44
11070.00	92.15	89.50	7031.77	32.00	4358.51	30.09 N	4358.45 E	4358.56@	89.60	8.72
11102.00	91.71	89.23	7030.69	32.00	4390.49	30.44 N	4390.43 E	4390.54@	89.60	1.61
11133.00	91.98	89.68	7029.69	31.00	4421.47	30.74 N	4421.42 E	4421.52@	89.60	1.69
11165.00	92.86	90.05	7028.34	32.00	4453.45	30.81 N	4453.39 E	4453.49@	89.60	2.98
11197.00	91.28	89.48	7027.19	32.00	4485.42	30.95 N	4485.36 E	4485.47@	89.60	5.25
11228.00	89.08	88.14	7027.09	31.00	4516.42	31.59 N	4516.36 E	4516.47@	89.60	8.31
11260.00	89.16	87.95	7027.58	32.00	4548.40	32.68 N	4548.33 E	4548.45@	89.59	0.64
11292.00	91.36	88.65	7027.44	32.00	4580.38	33.63 N	4580.32 E	4580.44@	89.58	7.21
11355.00	90.13	87.92	7026.62	63.00	4643.35	35.52 N	4643.28 E	4643.42@	89.56	2.27
11450.00	89.87	86.76	7026.62	95.00	4738.26	39.92 N	4738.18 E	4738.35@	89.52	1.25
11458.00	89.78	86.63	7026.64	8.00	4746.24	40.39 N	4746.16 E	4746.34@	89.51	1.98
STRAIGHT LINE PROJECTION TO BIT AT 11522' MD										
11522.00	89.78	86.63	7026.89	64.00	4810.14	44.15 N	4810.05 E	4810.25@	89.47	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.