

Operator: XTO Energy  
Well/Lease: Nash 58H  
County: Eddy

REC'D/MIDLAND  
JUN 07 2012

STATE OF NEW MEXICO  
DEVIATION REPORT

30-015-39304

<u>Footage</u>	<u>Degree</u>
221	1.00
436	5.00
610	0.75
916	0.75
1195	0.75
1474	1.25
1536	1.75
1660	0.50
1845	1.00
1938	0.75
2122	1.25
2308	0.75
2494	2.00
2681	1.00
2867	1.75
3052	0.25
3234	0.75
3606	0.75
3967	0.25
4347	0.75
4719	0.75
5092	1.00
5467	1.25

RECEIVED  
JAN 07 2013  
NMOCD ARTESIA

Signed By: Roger Dyer  
Roger Dyer, Drilling Superintendent  
Pioneer Drilling Company

Appeared before me on June 6, 2012

Staci Riley  
Notary Public

NOTARY PUBLIC  
STATE OF TEXAS  
STACI RILEY  
Notary Public, State of Texas  
My Commission Expires  
March 01, 2016

bw

WELL NAME: NASH 58  
LOCATION: 1700' FSL & 350' FEL, SEC 14, T 23S & R 29E  
FORMATION:  
SPUD DATE: 04/25/12  
IP:

COUNTY/STATE: LEA, NM  
LEASE: NASH DRAW, BYCN  
CURRENT STATUS: ESP  
COMPL DATE: 05/29/12  
API No: 30-015-39304



ELEV:  
GL: 2992'  
KB: 3009'

17 1/2" HOLE  
13/8" 48#, H40, CSG @ 225'  
CMT W/350 SX  
CIRC TO SURF W/216 SX

12-1/4" HOLE  
9-5/8" 36#, J-55 CSG SET @ 3100'  
CMT W/2250 SX  
CIRC TO SURF W/57 SX

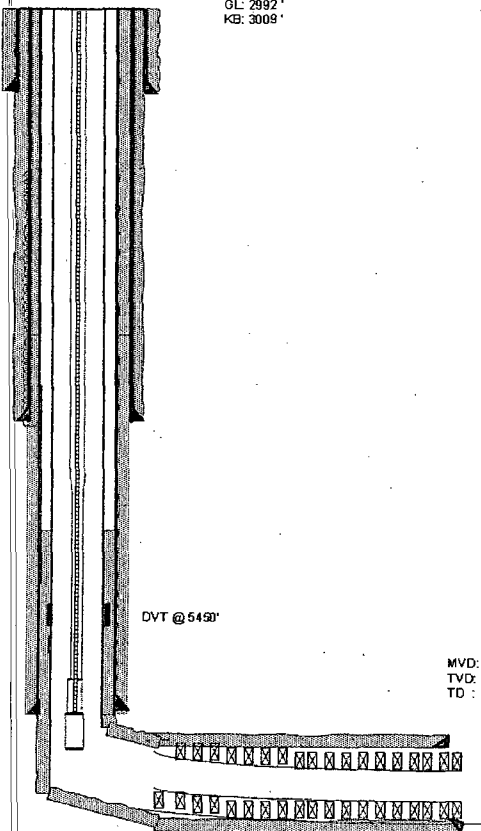
9-3/4" HOLE  
7" 26#, P-110, CSG SET @ 7150'  
CMT 1<sup>ST</sup> STG W/2000 SX  
CMT 2<sup>ND</sup> STG W/250 SX  
CIRC TO SURF W/304 SX

6 1/8" HOLE  
4-1/2", 11.6#, P-110 LINER  
SET FR/6340'-11,425'

DVT @ 5490'

MVD: '  
TVD: '  
TD : 11,456'

CURVE FR/6080'-6358'



# **PATHFINDER<sup>®</sup>**

**A Schlumberger Company**

## ***DIRECTIONAL SURVEY REPORT***

**XTO ENERGY**

***NASH UNIT #58H***

***EDDY COUNTY, NEW MEXICO***

**RECEIVED**

**JAN 07 2013**

**NMOCD ARTESIA**

**PREPARED BY: JUAN ALCOCER**

*mw*

Pathfinder

6213 WCR. 112  
Midland, Texas. 79706  
Tel. (432)687-1647  
Fax (432)687-1544



May 4, 2012

XTO Energy Inc.  
200 N. Loraine  
Attn: Barbi Woods  
Midland, TX 79701

RE: XTO Energy Inc.  
Nash Unit #58H  
Eddy County, NM  
Rig: Pioneer 33  
Field: Nash Draw; Delaware  
PES FILE NO.: 12MLD0183

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 cursive script that reads "Juan Alcocer".

JUAN ALCOCER  
MWD Coordinator  
PathFinder Energy Services

ML:sh

Pathfinder

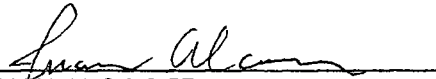
6213 WCR, 112  
Midland, Texas, 79706  
Tel. (432)687-1647  
Fax (432)687-1544



DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:  
A) HUEY SANDIFER
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 05-08-12 TO 05-26-12
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 #58H  
EDDY COUNTY, NM  
RIG: PIONEER 33
9. SURVEY CERTIFIED FROM: 6,044 TO 11,396 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4,802.17 FEET ON A BEARING OF 254.74 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 11,456 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

  
\_\_\_\_\_  
JUAN ALCOCER  
MWD COORDINATOR

PathFinder Energy Services, Inc.  
BHL Report

Page 01/01  
Tie-in Date: 05/07/2012  
Date Completed: 05/26/2012

XTO ENERGY CORP.  
NASH UNIT #58H  
EDDY COUNTY, NM  
Rig:PIONEER 33  
PathFinder Office Supervisor: JUAN ALCOCER  
PathFinder Field Engineers:HUEY SANDIFER  
KOLEY THURMAN

Survey Horiz. Reference:WELLHEAD  
Ref Coordinates: LAT:32.18.8.0209 N LON:103.56.50.8589 W  
GRID Reference:NAD27 new mexico east Transverse Mercator  
Ref GRID Coord: X: 619224.8000 Y: 473881.9000  
North Aligned To:GRID NORTH  
Total Magnetic Correction: 7.45° EAST TO GRID  
Vertical Section Plane: 254.47  
Survey Vert. Reference: 19.00' Kelly Bushing To Ground  
Altitude:2992.00' Ground To MSL

Measured Depth	11456.00	(feet)
Inclination	89.52	(deg)
Azimuth	268.07	(deg)
True Vertical Depth	6740.93	(feet)
Vertical Section	4802.11	(feet)
Survey X cord	614591.92	(feet)
Survey Y cord	472617.78	(feet)
Survey Lat	32.29879804 N	(deg)
Survey Lon	103.96246907 W	(deg)
Rectangular Corr. N/S	1264.09 S	(feet)
Rectangular Corr. E/W	4632.81 W	(feet)
Closure Distance	4802.17	(feet)
Direction of Closure	254.74	(deg)
Dogleg Severity	0.00	(deg/100ft)

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
NASH UNIT #58H  
EDDY COUNTY, NM  
Rig:PIONEER 33  
PathFinder Office Supervisor: JUAN ALCOCER  
PathFinder Field Engineers: HUEY SANDIFER  
KOLEY THURMAN

Survey Horiz. Reference:WELLHEAD  
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Total Magnetic Correction: 7.45° EAST TO GRID  
Vertical Section Plane: 254.47  
Survey Vert. Reference: 19.00' Kelly Bushing To Ground  
Altitude:2992.00' 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)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE VAUGHN ENERGY SERVICES GYRO SURVEYS.										
100.00	0.37	26.50	100.00	0.00	-0.21	0.26 N	0.15 E	0.30@	29.28	0.00
200.00	0.24	350.39	200.00	100.00	-0.45	0.76 N	0.26 E	0.80@	18.71	0.23
300.00	0.28	303.44	300.00	100.00	-0.31	1.10 N	0.02 E	1.10@	0.96	0.21
400.00	0.23	334.95	400.00	100.00	-0.12	1.42 N	0.27 W	1.44@	349.20	0.15
500.00	0.13	301.59	500.00	100.00	-0.01	1.66 N	0.45 W	1.72@	344.75	0.14
600.00	0.23	314.70	600.00	100.00	0.17	1.86 N	0.69 W	1.98@	339.60	0.11
700.00	0.23	20.69	700.00	100.00	0.15	2.19 N	0.76 W	2.32@	340.77	0.25
800.00	0.14	348.21	800.00	100.00	0.02	2.50 N	0.72 W	2.60@	343.97	0.13
900.00	0.30	359.14	900.00	100.00	-0.05	2.88 N	0.75 W	2.97@	345.46	0.16
1000.00	0.38	342.03	999.99	100.00	-0.10	3.45 N	0.85 W	3.56@	346.14	0.13
1100.00	0.39	303.02	1099.99	100.00	0.14	3.95 N	1.24 W	4.14@	342.59	0.26
1200.00	0.39	293.97	1199.99	100.00	0.62	4.28 N	1.84 W	4.66@	336.77	0.06
1300.00	0.57	281.36	1299.99	100.00	1.33	4.51 N	2.64 W	5.23@	329.73	0.21
1400.00	0.59	284.41	1399.98	100.00	2.22	4.74 N	3.62 W	5.97@	322.63	0.04
1500.00	0.70	283.26	1499.97	100.00	3.20	5.01 N	4.71 W	6.88@	316.74	0.11
1600.00	0.50	293.58	1599.97	100.00	4.08	5.32 N	5.71 W	7.81@	313.00	0.23
1700.00	0.41	292.53	1699.97	100.00	4.70	5.64 N	6.44 W	8.56@	311.19	0.09
1800.00	0.39	244.95	1799.96	100.00	5.31	5.63 N	7.08 W	9.04@	308.49	0.32
1900.00	0.52	249.26	1899.96	100.00	6.10	5.32 N	7.81 W	9.45@	304.28	0.13
2000.00	0.41	262.59	1999.96	100.00	6.91	5.12 N	8.59 W	10.00@	300.78	0.15
2100.00	0.41	282.88	2099.95	100.00	7.58	5.15 N	9.29 W	10.63@	298.99	0.14
2200.00	0.46	307.18	2199.95	100.00	8.13	5.47 N	9.96 W	11.37@	298.78	0.19
2300.00	0.33	100.80	2299.95	100.00	8.12	5.66 N	10.00 W	11.49@	299.52	0.77
2400.00	1.14	109.44	2399.94	100.00	7.05	5.28 N	8.78 W	10.24@	301.01	0.82
2500.00	1.46	121.06	2499.92	100.00	5.35	4.29 N	6.75 W	8.00@	302.43	0.41

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 EDDY COUNTY, NM  
 RIG:PIONEER 33

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
2600.00	1.69	129.18	2599.88	100.00	3.63	2.70 N	4.51 W	5.26@	300.87	0.32
2700.00	1.68	139.43	2699.84	100.00	2.15	0.65 N	2.42 W	2.50@	285.13	0.30
2800.00	1.68	131.47	2799.79	100.00	0.74	1.43 S	0.37 W	1.48@	194.37	0.23
2900.00	1.57	119.33	2899.75	100.00	-1.03	3.07 S	1.93 E	3.63@	147.91	0.36
3000.00	1.00	123.32	2999.73	100.00	-2.58	4.22 S	3.85 E	5.71@	137.64	0.58
3100.00	0.82	125.03	3099.71	100.00	-3.61	5.11 S	5.17 E	7.27@	134.71	0.18
3200.00	0.29	101.68	3199.71	100.00	-4.29	5.57 S	6.00 E	8.19@	132.90	0.57
3300.00	0.30	129.29	3299.71	100.00	-4.66	5.79 S	6.45 E	8.67@	131.92	0.14
3400.00	0.24	138.55	3399.71	100.00	-4.91	6.11 S	6.79 E	9.14@	132.00	0.07
3500.00	0.48	134.74	3499.70	100.00	-5.20	6.57 S	7.23 E	9.76@	132.26	0.24
3600.00	0.39	167.15	3599.70	100.00	-5.40	7.19 S	7.60 E	10.46@	133.42	0.26
3700.00	0.34	137.75	3699.70	100.00	-5.51	7.74 S	7.88 E	11.04@	134.52	0.19
3800.00	0.35	152.65	3799.70	100.00	-5.71	8.24 S	8.21 E	11.63@	135.07	0.09
3900.00	0.43	167.88	3899.70	100.00	-5.75	8.87 S	8.43 E	12.24@	136.45	0.13
4000.00	0.17	208.30	3999.69	100.00	-5.63	9.37 S	8.44 E	12.61@	137.98	0.32
4100.00	0.23	195.85	4099.69	100.00	-5.42	9.69 S	8.32 E	12.77@	139.37	0.07
4200.00	0.29	240.93	4199.69	100.00	-5.07	10.01 S	8.04 E	12.84@	141.23	0.21
4300.00	0.33	236.81	4299.69	100.00	-4.55	10.29 S	7.58 E	12.78@	143.63	0.05
4400.00	0.29	269.14	4399.69	100.00	-4.03	10.45 S	7.09 E	12.63@	145.87	0.18
4500.00	0.27	272.11	4499.69	100.00	-3.56	10.45 S	6.60 E	12.36@	147.73	0.02
4600.00	0.29	259.51	4599.69	100.00	-3.08	10.49 S	6.11 E	12.14@	149.76	0.06
4700.00	0.31	248.83	4699.69	100.00	-2.56	10.63 S	5.61 E	12.02@	152.17	0.06
4800.00	0.26	238.70	4799.69	100.00	-2.07	10.84 S	5.17 E	12.01@	154.53	0.07
4900.00	0.43	228.53	4899.68	100.00	-1.52	11.21 S	4.69 E	12.15@	157.30	0.18
5000.00	0.42	238.66	4999.68	100.00	-0.83	11.65 S	4.10 E	12.35@	160.63	0.08
5100.00	0.48	226.59	5099.68	100.00	-0.10	12.13 S	3.48 E	12.62@	164.00	0.11
5200.00	0.47	222.92	5199.67	100.00	0.62	12.72 S	2.89 E	13.04@	167.18	0.03
5300.00	0.67	222.34	5299.67	100.00	1.46	13.45 S	2.22 E	13.63@	170.62	0.20



# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 EDDY COUNTY, NM  
 RIG:PIONEER 33

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
5400.00	0.59	220.67	5399.66	100.00	2.38	14.27 S	1.49 E	14.35@	174.03	0.08
5500.00	0.76	216.93	5499.66	100.00	3.34	15.19 S	0.76 E	15.21@	177.14	0.18
5600.00	0.73	229.11	5599.65	100.00	4.44	16.14 S	0.12 W	16.14@	180.43	0.16
5700.00	0.70	229.36	5699.64	100.00	5.57	16.95 S	1.07 W	16.99@	183.60	0.03
5800.00	0.69	230.64	5799.63	100.00	6.67	17.73 S	2.00 W	17.85@	186.42	0.02
5900.00	0.62	242.52	5899.63	100.00	7.75	18.37 S	2.94 W	18.60@	189.10	0.15
** TIE-IN TO VAUGHN ENERGY SERVICES GYRO SURVEY AT 6028'MD.										
6028.00	1.21	214.44	6027.61	128.00	9.46	19.80 S	4.32 W	20.27@	192.31	0.57
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
6044.00	1.23	213.58	6043.61	16.00	9.72	20.08 S	4.51 W	20.58@	192.66	0.17
6075.00	2.11	221.94	6074.59	31.00	10.46	20.78 S	5.08 W	21.39@	193.72	2.94
6106.00	4.40	231.55	6105.54	31.00	12.03	21.95 S	6.39 W	22.86@	196.23	7.57
6137.00	7.47	233.75	6136.37	31.00	15.01	23.88 S	8.95 W	25.50@	200.54	9.93
6167.00	11.08	237.34	6165.97	30.00	19.59	26.59 S	12.95 W	29.57@	205.96	12.18
6198.00	14.77	237.00	6196.18	31.00	26.21	30.35 S	18.77 W	35.69@	211.74	11.91
6229.00	17.85	238.25	6225.93	31.00	34.54	35.00 S	26.13 W	43.68@	216.74	10.00
6260.00	20.22	238.38	6255.24	31.00	44.26	40.31 S	34.73 W	53.21@	220.74	7.65
6292.00	22.25	239.31	6285.06	32.00	55.42	46.31 S	44.65 W	64.33@	223.96	6.43
6322.00	24.27	239.34	6312.62	30.00	66.85	52.35 S	54.84 W	75.81@	226.33	6.73
6353.00	25.85	239.22	6340.70	31.00	79.52	59.06 S	66.13 W	88.66@	228.23	5.10
6384.00	27.70	240.10	6368.38	31.00	93.03	66.11 S	78.18 W	102.38@	229.78	6.10
6415.00	29.55	238.97	6395.59	31.00	107.37	73.64 S	90.98 W	117.05@	231.01	6.22
6446.00	30.86	240.35	6422.38	31.00	122.45	81.51 S	104.44 W	132.48@	232.03	4.78
6477.00	32.01	240.16	6448.83	31.00	138.12	89.54 S	118.47 W	148.50@	232.92	3.72
6508.00	33.50	239.21	6474.90	31.00	154.34	98.00 S	132.95 W	165.17@	233.60	5.08
6539.00	35.09	240.73	6500.51	31.00	171.25	106.74 S	148.07 W	182.54@	234.21	5.83
6571.00	36.67	240.97	6526.44	32.00	189.47	115.88 S	164.45 W	201.18@	234.83	4.96
6602.00	38.25	240.65	6551.04	31.00	207.80	125.07 S	180.91 W	219.94@	235.34	5.14

# PathFinder Energy Services, Inc.

## Survey Report

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 NASH UNIT #58H  
 EDDY COUNTY, NM  
 RIG:PIONEER 33

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
6633.00	39.39	239.97	6575.19	31.00	226.64	134.70 S	197.79 W	239.30@	235.75	3.93
6664.00	40.54	239.20	6598.95	31.00	245.88	144.78 S	214.96 W	259.17@	236.04	4.04
6695.00	42.82	238.32	6622.11	31.00	265.72	155.47 S	232.59 W	279.76@	236.24	7.59
6726.00	45.81	237.85	6644.28	31.00	286.49	166.92 S	250.97 W	301.41@	236.37	9.70
6757.00	49.59	236.90	6665.14	31.00	308.40	179.29 S	270.27 W	324.33@	236.44	12.40
6788.00	53.46	236.43	6684.43	31.00	331.51	192.62 S	290.54 W	348.59@	236.46	12.54
6819.00	57.07	236.32	6702.09	31.00	355.72	206.73 S	311.75 W	374.06@	236.45	11.65
6850.00	60.50	236.67	6718.15	31.00	380.93	221.36 S	333.85 W	400.57@	236.45	11.11
6881.00	62.87	237.20	6732.85	31.00	406.95	236.25 S	356.72 W	427.86@	236.48	7.79
6912.00	66.65	237.76	6746.07	31.00	433.77	251.32 S	380.36 W	455.89@	236.55	12.30
6943.00	70.35	237.99	6757.43	31.00	461.40	266.65 S	404.79 W	484.72@	236.63	11.96
6974.00	73.51	237.86	6767.04	31.00	489.65	282.30 S	429.76 W	514.18@	236.70	10.20
7006.00	75.27	236.98	6775.66	32.00	519.11	298.89 S	455.72 W	545.00@	236.74	6.11
7037.00	76.94	235.84	6783.10	31.00	547.72	315.54 S	480.79 W	575.09@	236.72	6.46
7068.00	78.61	234.44	6789.66	31.00	576.31	332.86 S	505.65 W	605.37@	236.64	6.96
7091.00	80.55	233.45	6793.82	23.00	597.49	346.17 S	523.93 W	627.97@	236.55	9.44
7159.00	88.11	230.89	6800.54	68.00	660.04	387.65 S	577.33 W	695.40@	236.12	11.73
7181.00	90.48	230.53	6800.81	22.00	680.18	401.58 S	594.36 W	717.30@	235.95	10.90
7212.00	93.30	229.88	6799.79	31.00	708.42	421.41 S	618.16 W	748.13@	235.72	9.33
7244.00	93.91	230.66	6797.77	32.00	737.55	441.82 S	642.72 W	779.93@	235.49	3.09
7276.00	93.56	231.84	6795.69	32.00	766.89	461.81 S	667.62 W	811.78@	235.33	3.84
7307.00	93.74	233.17	6793.72	31.00	795.58	480.64 S	692.17 W	842.68@	235.22	4.32
7338.00	92.24	234.37	6792.10	31.00	824.54	498.93 S	717.14 W	873.63@	235.17	6.19
7370.00	91.01	235.16	6791.19	32.00	854.66	517.39 S	743.26 W	905.61@	235.16	4.57
7401.00	90.04	237.12	6790.91	31.00	884.08	534.66 S	769.00 W	936.60@	235.19	7.05
7433.00	90.31	238.20	6790.81	32.00	914.71	551.78 S	796.04 W	968.57@	235.27	3.48
7465.00	90.48	238.16	6790.59	32.00	945.43	568.65 S	823.23 W	1000.53@	235.37	0.55
7496.00	90.04	239.14	6790.45	31.00	975.25	584.77 S	849.70 W	1031.48@	235.46	3.46

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 EDDY COUNTY, NM  
 RIG: PIONEER 33

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)	
7528.00	90.40	240.21	6790.33	32.00	1006.19	600.93 S	877.33 W	1063.40@	235.59	3.53
7560.00	90.22	240.68	6790.15	32.00	1037.24	616.72 S	905.16 W	1095.29@	235.73	1.57
7591.00	89.43	240.45	6790.25	31.00	1067.33	631.95 S	932.16 W	1126.18@	235.87	2.65
7623.00	89.96	240.61	6790.42	32.00	1098.38	647.69 S	960.02 W	1158.08@	235.99	1.73
7654.00	90.13	240.84	6790.39	31.00	1128.50	662.85 S	987.06 W	1188.97@	236.12	0.92
7686.00	89.52	240.61	6790.49	32.00	1159.58	678.50 S	1014.97 W	1220.87@	236.24	2.04
7718.00	89.96	240.63	6790.64	32.00	1190.65	694.20 S	1042.86 W	1252.78@	236.35	1.38
7749.00	90.04	239.58	6790.64	31.00	1220.68	709.65 S	1069.73 W	1283.72@	236.44	3.40
7781.00	92.07	239.97	6790.05	32.00	1251.62	725.75 S	1097.37 W	1315.65@	236.52	6.46
7812.00	92.42	240.21	6788.83	31.00	1281.63	741.20 S	1124.22 W	1346.57@	236.60	1.37
7844.00	92.59	239.17	6787.43	32.00	1312.54	757.33 S	1151.82 W	1378.50@	236.67	3.29
7876.00	91.45	237.88	6786.31	32.00	1343.29	774.03 S	1179.10 W	1410.46@	236.72	5.38
7907.00	89.60	237.63	6786.02	31.00	1372.98	790.57 S	1205.31 W	1441.45@	236.74	6.02
7939.00	87.67	237.02	6786.78	32.00	1403.55	807.84 S	1232.24 W	1473.44@	236.75	6.33
7970.00	85.74	236.92	6788.57	31.00	1433.06	824.71 S	1258.19 W	1504.39@	236.76	6.23
8002.00	85.12	237.32	6791.12	32.00	1463.51	842.02 S	1284.97 W	1536.28@	236.76	2.30
8034.00	84.86	237.15	6793.91	32.00	1493.95	859.28 S	1311.78 W	1568.16@	236.77	0.97
8065.00	84.94	237.16	6796.67	31.00	1523.43	876.02 S	1337.72 W	1599.04@	236.78	0.26
8097.00	84.94	237.03	6799.49	32.00	1553.85	893.34 S	1364.48 W	1630.91@	236.79	0.41
8129.00	86.00	237.25	6802.02	32.00	1584.30	910.65 S	1391.28 W	1662.81@	236.79	3.38
8161.00	87.49	237.18	6803.83	32.00	1614.81	927.95 S	1418.14 W	1694.76@	236.80	4.66
8192.00	89.78	237.60	6804.57	31.00	1644.44	944.65 S	1444.24 W	1725.74@	236.81	7.51
8224.00	90.75	237.76	6804.42	32.00	1675.07	961.76 S	1471.28 W	1757.74@	236.83	3.07
8256.00	91.63	238.51	6803.76	32.00	1705.77	978.65 S	1498.45 W	1789.72@	236.85	3.61
8287.00	91.63	238.53	6802.88	31.00	1735.57	994.83 S	1524.88 W	1820.70@	236.88	0.06
8319.00	91.89	238.38	6801.89	32.00	1766.31	1011.56 S	1552.14 W	1852.67@	236.91	0.94
8351.00	91.80	238.41	6800.86	32.00	1797.04	1028.32 S	1579.38 W	1884.64@	236.93	0.30
8382.00	91.71	239.57	6799.91	31.00	1826.90	1044.28 S	1605.94 W	1915.61@	236.97	3.75

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 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)		Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
8414.00	91.63	240.06	6798.98	32.00	1857.85	1060.37 S	1633.58 W	1947.56@	237.01	1.55
8445.00	91.45	240.70	6798.15	31.00	1887.91	1075.68 S	1660.52 W	1978.49@	237.06	2.14
8477.00	90.48	241.91	6797.61	32.00	1919.06	1091.05 S	1688.59 W	2010.40@	237.13	4.85
8509.00	90.66	242.38	6797.29	32.00	1950.32	1106.00 S	1716.88 W	2042.28@	237.21	1.57
8540.00	90.75	243.03	6796.91	31.00	1980.67	1120.21 S	1744.43 W	2073.14@	237.29	2.12
8572.00	90.84	244.82	6796.47	32.00	2012.12	1134.27 S	1773.17 W	2104.92@	237.39	5.60
8603.00	90.57	245.50	6796.08	31.00	2042.71	1147.30 S	1801.29 W	2135.64@	237.51	2.36
8635.00	89.96	247.04	6795.94	32.00	2074.38	1160.17 S	1830.59 W	2167.27@	237.63	5.18
8667.00	91.19	249.39	6795.62	32.00	2106.19	1172.05 S	1860.30 W	2198.73@	237.79	8.29
8698.00	90.13	250.21	6795.26	31.00	2137.08	1182.75 S	1889.39 W	2229.06@	237.95	4.32
8730.00	89.08	251.15	6795.48	32.00	2169.01	1193.34 S	1919.59 W	2260.28@	238.13	4.40
8761.00	89.52	253.36	6795.86	31.00	2199.98	1202.78 S	1949.11 W	2290.35@	238.32	7.27
8793.00	90.48	253.80	6795.86	32.00	2231.98	1211.83 S	1979.80 W	2321.24@	238.53	3.30
8825.00	89.34	254.57	6795.91	32.00	2263.98	1220.55 S	2010.59 W	2352.07@	238.74	4.30
8856.00	88.55	255.51	6796.48	31.00	2294.97	1228.55 S	2040.53 W	2381.83@	238.95	3.96
8888.00	88.37	256.52	6797.34	32.00	2326.95	1236.28 S	2071.57 W	2412.43@	239.17	3.20
8919.00	90.22	258.00	6797.72	31.00	2357.91	1243.12 S	2101.81 W	2441.91@	239.40	7.64
8951.00	92.51	258.57	6796.96	32.00	2389.82	1249.61 S	2133.13 W	2472.20@	239.64	7.37
8983.00	92.68	259.08	6795.51	32.00	2421.70	1255.81 S	2164.49 W	2502.41@	239.88	1.68
9015.00	92.07	259.77	6794.18	32.00	2453.55	1261.68 S	2195.92 W	2532.56@	240.12	2.88
9046.00	91.80	260.82	6793.14	31.00	2484.37	1266.90 S	2226.46 W	2561.67@	240.36	3.50
9078.00	91.45	261.53	6792.23	32.00	2516.14	1271.81 S	2258.06 W	2591.59@	240.61	2.47
9109.00	93.39	263.27	6790.92	31.00	2546.81	1275.90 S	2288.76 W	2620.37@	240.86	8.40
9141.00	95.50	264.80	6788.44	32.00	2578.27	1279.22 S	2320.49 W	2649.73@	241.13	8.14
9173.00	96.55	266.54	6785.08	32.00	2609.49	1281.62 S	2352.22 W	2678.71@	241.42	6.33
9205.00	95.67	268.18	6781.67	32.00	2640.50	1283.09 S	2384.00 W	2707.36@	241.71	5.79
9236.00	93.03	269.28	6779.32	31.00	2670.46	1283.77 S	2414.90 W	2734.93@	242.00	9.22
9268.00	90.75	270.69	6778.27	32.00	2701.27	1283.78 S	2446.88 W	2763.21@	242.32	8.38

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 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		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
9300.00	91.19	271.12	6777.73	32.00	2731.96	1283.27 S	2478.87 W	2791.34@	242.63	1.92
9331.00	91.01	270.43	6777.13	31.00	2761.71	1282.85 S	2509.87 W	2818.71@	242.93	2.30
9363.00	90.22	269.56	6776.79	32.00	2792.54	1282.86 S	2541.86 W	2847.24@	243.22	3.67
9395.00	90.75	269.75	6776.52	32.00	2823.42	1283.05 S	2573.86 W	2875.93@	243.50	1.76
9426.00	90.84	269.48	6776.09	31.00	2853.34	1283.26 S	2604.86 W	2903.80@	243.77	0.92
9458.00	89.52	269.32	6775.99	32.00	2884.26	1283.59 S	2636.85 W	2932.68@	244.04	4.15
9490.00	89.16	269.12	6776.35	32.00	2915.20	1284.03 S	2668.85 W	2961.67@	244.31	1.29
9521.00	89.16	268.64	6776.81	31.00	2945.22	1284.63 S	2699.84 W	2989.89@	244.55	1.55
9553.00	89.52	268.77	6777.18	32.00	2976.24	1285.36 S	2731.83 W	3019.11@	244.80	1.20
9585.00	90.04	269.16	6777.30	32.00	3007.22	1285.94 S	2763.82 W	3048.34@	245.05	2.03
9616.00	89.60	268.75	6777.40	31.00	3037.23	1286.50 S	2794.82 W	3076.70@	245.28	1.94
9648.00	89.43	268.92	6777.67	32.00	3068.23	1287.15 S	2826.81 W	3106.06@	245.52	0.75
9680.00	91.10	270.67	6777.52	32.00	3099.09	1287.27 S	2858.81 W	3135.26@	245.76	7.56
9711.00	92.42	271.91	6776.57	31.00	3128.75	1286.57 S	2889.78 W	3163.24@	246.00	5.84
9743.00	92.24	271.97	6775.27	32.00	3159.25	1285.49 S	2921.74 W	3192.03@	246.25	0.59
9774.00	91.54	271.82	6774.24	31.00	3188.81	1284.46 S	2952.71 W	3219.99@	246.49	2.31
9806.00	91.19	271.50	6773.48	32.00	3219.37	1283.53 S	2984.68 W	3248.97@	246.73	1.48
9838.00	91.01	270.96	6772.87	32.00	3250.01	1282.85 S	3016.67 W	3278.11@	246.96	1.78
9869.00	90.75	269.89	6772.39	31.00	3279.81	1282.62 S	3047.67 W	3306.57@	247.18	3.55
9900.00	90.48	268.84	6772.06	31.00	3309.76	1282.96 S	3078.66 W	3335.29@	247.38	3.50
9932.00	89.69	268.56	6772.01	32.00	3340.78	1283.69 S	3110.65 W	3365.12@	247.58	2.62
9964.00	89.87	269.09	6772.13	32.00	3371.78	1284.34 S	3142.64 W	3394.96@	247.77	1.75
9995.00	89.52	270.74	6772.30	31.00	3401.66	1284.39 S	3173.64 W	3423.69@	247.97	5.44
10027.00	89.96	270.70	6772.44	32.00	3432.38	1283.99 S	3205.64 W	3453.22@	248.17	1.38
10058.00	89.16	269.93	6772.68	31.00	3462.20	1283.82 S	3236.64 W	3481.96@	248.36	3.58
10090.00	89.78	270.62	6772.98	32.00	3492.99	1283.66 S	3268.64 W	3511.66@	248.56	2.90
10122.00	90.75	271.28	6772.83	32.00	3523.68	1283.13 S	3300.63 W	3541.27@	248.76	3.67
10153.00	91.89	271.98	6772.12	31.00	3553.29	1282.25 S	3331.61 W	3569.84@	248.95	4.32

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 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)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10185.00	92.42	272.74	6770.91	32.00	3583.72	1280.93 S	3363.56 W	3599.21@	249.15	2.89
10216.00	92.68	273.13	6769.53	31.00	3613.09	1279.35 S	3394.49 W	3627.57@	249.35	1.51
10248.00	93.12	273.31	6767.92	32.00	3643.36	1277.55 S	3426.40 W	3656.82@	249.55	1.49
10280.00	93.03	273.09	6766.20	32.00	3673.62	1275.77 S	3458.30 W	3686.11@	249.75	0.74
10312.00	92.86	272.35	6764.56	32.00	3703.97	1274.25 S	3490.22 W	3715.56@	249.94	2.37
10343.00	91.36	270.99	6763.41	31.00	3733.56	1273.35 S	3521.19 W	3744.35@	250.12	6.53
10374.00	91.89	270.35	6762.53	31.00	3763.32	1272.99 S	3552.17 W	3773.38@	250.28	2.68
10406.00	90.57	269.73	6761.85	32.00	3794.13	1272.97 S	3584.16 W	3803.51@	250.45	4.56
10437.00	89.43	269.17	6761.85	31.00	3824.08	1273.26 S	3615.16 W	3832.83@	250.60	4.10
10469.00	90.57	270.74	6761.85	32.00	3854.92	1273.29 S	3647.16 W	3863.04@	250.75	6.06
10501.00	90.48	271.94	6761.55	32.00	3885.54	1272.54 S	3679.15 W	3893.01@	250.92	3.76
10533.00	90.22	272.16	6761.36	32.00	3916.04	1271.40 S	3711.13 W	3922.87@	251.09	1.06
10564.00	90.48	272.42	6761.17	31.00	3945.56	1270.16 S	3742.10 W	3951.79@	251.25	1.19
10596.00	89.43	272.07	6761.20	32.00	3976.03	1268.90 S	3774.08 W	3981.68@	251.42	3.46
10627.00	91.71	273.30	6760.89	31.00	4005.47	1267.45 S	3805.04 W	4010.58@	251.58	8.36
10659.00	93.83	273.31	6759.34	32.00	4035.72	1265.61 S	3836.95 W	4040.29@	251.74	6.63
10691.00	92.59	271.50	6757.55	32.00	4066.11	1264.27 S	3868.87 W	4070.20@	251.90	6.85
10722.00	92.24	270.23	6756.24	31.00	4095.83	1263.80 S	3899.84 W	4099.50@	252.04	4.25
10753.00	93.12	269.05	6754.79	31.00	4125.71	1264.00 S	3930.80 W	4129.03@	252.17	4.74
10785.00	94.44	269.36	6752.68	32.00	4156.59	1264.44 S	3962.73 W	4159.57@	252.30	4.24
10817.00	94.88	268.65	6750.08	32.00	4187.47	1264.99 S	3994.61 W	4190.13@	252.43	2.60
10848.00	94.88	268.09	6747.45	31.00	4217.45	1265.87 S	4025.49 W	4219.83@	252.54	1.80
10880.00	94.70	268.19	6744.77	32.00	4248.43	1266.91 S	4057.36 W	4250.56@	252.66	0.64
10911.00	93.91	267.46	6742.45	31.00	4278.51	1268.08 S	4088.25 W	4280.40@	252.77	3.46
10943.00	92.42	268.28	6740.68	32.00	4309.59	1269.27 S	4120.18 W	4311.25@	252.88	5.31
10974.00	90.66	268.88	6739.85	31.00	4339.64	1270.04 S	4151.16 W	4341.09@	252.99	6.00
11006.00	90.40	269.08	6739.55	32.00	4370.62	1270.60 S	4183.15 W	4371.86@	253.10	1.03
11037.00	90.92	269.96	6739.19	31.00	4400.56	1270.86 S	4214.15 W	4401.61@	253.22	3.30

# PathFinder Energy Services, Inc.

## Survey Report

XTO ENERGY CORP.  
 NASH UNIT #58H  
 EDDY COUNTY, NM  
 RIG: PIONEER 33

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)	
11069.00	91.19	270.58	6738.60	32.00	4431.34	1270.71 S	4246.14 W	4432.20@	253.34	2.11
11101.00	91.54	271.27	6737.84	32.00	4462.02	1270.20 S	4278.13 W	4462.71@	253.46	2.42
11132.00	90.92	273.33	6737.18	31.00	4491.52	1268.95 S	4309.09 W	4492.05@	253.59	6.94
11164.00	89.52	272.50	6737.05	32.00	4521.88	1267.33 S	4341.05 W	4522.26@	253.73	5.09
11196.00	88.02	273.43	6737.74	32.00	4552.22	1265.67 S	4373.00 W	4552.48@	253.86	5.52
11227.00	88.11	273.08	6738.79	31.00	4581.55	1263.91 S	4403.93 W	4581.71@	253.99	1.16
11259.00	88.90	272.47	6739.62	32.00	4611.92	1262.36 S	4435.88 W	4612.01@	254.11	3.12
11290.00	89.43	270.78	6740.07	31.00	4641.54	1261.48 S	4466.87 W	4641.58@	254.23	5.71
11322.00	90.22	271.10	6740.17	32.00	4672.22	1260.96 S	4498.86 W	4672.23@	254.34	2.66
11354.00	89.78	269.14	6740.17	32.00	4703.04	1260.89 S	4530.86 W	4703.04@	254.45	6.28
11385.00	89.60	267.93	6740.34	31.00	4733.10	1261.69 S	4561.85 W	4733.11@	254.54	3.95
11396.00	89.52	268.07	6740.42	11.00	4743.80	1262.07 S	4572.84 W	4743.81@	254.57	1.47
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 11456'MD.										
11456.00	89.52	268.07	6740.93	60.00	4802.11	1264.09 S	4632.81 W	4802.17@	254.74	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.



Company: XTO  
 Well #: Nash 58H  
 County: Eddy  
 State: New Mexico

Date: 5/7/2012  
 Job Type: Rate Gyro  
 Latitude: 32.302  
 Longitude: -103.9483  
 Elevation: 2989 feet

Depth	In.	LS	NLS	FLW	TVD	DI	SLC	CD	GRD
100.00	0.37	26.50	0.29	0.15	100.00	0.37	0.29	0.33	26.50
200.00	0.24	350.39	0.79	0.26	200.00	0.23	0.79	0.83	17.96
300.00	0.28	303.44	1.13	0.02	300.00	0.21	1.13	1.13	1.04
400.00	0.23	334.95	1.45	-0.27	400.00	0.14	1.45	1.47	349.58
500.00	0.13	301.59	1.69	-0.45	500.00	0.14	1.69	1.75	345.08
600.00	0.23	314.70	1.89	-0.69	600.00	0.10	1.89	2.01	339.96
700.00	0.23	20.69	2.21	-0.76	699.99	0.25	2.21	2.34	341.05
800.00	0.14	348.21	2.52	-0.72	799.99	0.13	2.52	2.62	344.14
900.00	0.30	359.14	2.90	-0.75	899.99	0.16	2.90	3.00	345.60
1000.00	0.38	342.03	3.47	-0.85	999.99	0.13	3.47	3.58	346.24
1100.00	0.39	303.02	3.98	-1.24	1099.99	0.26	3.98	4.16	342.68
1200.00	0.39	293.97	4.30	-1.84	1199.99	0.06	4.30	4.68	336.86
1300.00	0.57	281.36	4.54	-2.64	1299.98	0.21	4.54	5.25	329.82
1400.00	0.59	284.41	4.76	-3.62	1399.98	0.03	4.76	5.99	322.73
1500.00	0.70	283.26	5.03	-4.71	1499.97	0.11	5.03	6.89	316.86
1600.00	0.50	293.58	5.35	-5.71	1599.97	0.22	5.35	7.82	313.12
1700.00	0.41	292.53	5.66	-6.44	1699.96	0.10	5.66	8.57	311.30
1800.00	0.39	244.95	5.65	-7.08	1799.96	0.32	5.65	9.05	308.59
1900.00	0.52	249.26	5.34	-7.82	1899.96	0.13	5.34	9.47	304.35
2000.00	0.41	262.59	5.13	-8.60	1999.95	0.15	5.13	10.02	300.83
2100.00	0.41	282.88	5.17	-9.31	2099.95	0.15	5.17	10.65	299.02
2200.00	0.46	307.18	5.49	-9.98	2199.95	0.19	5.49	11.39	298.80
2300.00	0.33	100.80	5.68	-10.02	2299.95	0.77	5.68	11.52	299.54
2400.00	1.14	109.44	5.29	-8.80	2399.94	0.82	5.29	10.27	301.03
2500.00	1.46	121.06	4.30	-6.77	2499.91	0.41	4.30	8.02	302.46
2600.00	1.69	129.18	2.71	-4.53	2599.88	0.32	2.71	5.28	300.91
2700.00	1.68	139.43	0.66	-2.43	2699.83	0.30	0.66	2.52	285.30
2800.00	1.68	131.47	-1.42	-0.38	2799.79	0.23	-1.42	1.47	194.82
2900.00	1.57	119.33	-3.07	1.92	2899.75	0.36	-3.07	3.62	147.95
3000.00	1.00	123.32	-4.22	3.85	2999.72	0.58	-4.22	5.71	137.64
3100.00	0.82	125.03	-5.11	5.16	3099.71	0.18	-5.11	7.26	134.70
3200.00	0.29	101.68	-5.57	6.00	3199.71	0.57	-5.57	8.18	132.90
3300.00	0.30	129.29	-5.79	6.45	3299.71	0.14	-5.79	8.66	131.93
3400.00	0.24	138.55	-6.12	6.79	3399.70	0.07	-6.12	9.14	132.00
3500.00	0.48	134.74	-6.57	7.23	3499.70	0.23	-6.57	9.77	132.26
3600.00	0.39	167.15	-7.19	7.60	3599.70	0.26	-7.19	10.47	133.43
3700.00	0.34	137.75	-7.75	7.88	3699.70	0.19	-7.75	11.05	134.52
3800.00	0.35	152.65	-8.24	8.22	3799.70	0.09	-8.24	11.63	135.07
3900.00	0.43	167.88	-8.87	8.44	3899.69	0.13	-8.87	12.24	136.45
4000.00	0.17	208.30	-9.37	8.44	3999.69	0.32	-9.37	12.61	137.97
4100.00	0.23	195.85	-9.69	8.32	4099.69	0.07	-9.69	12.77	139.35
4200.00	0.29	240.93	-10.00	8.05	4199.69	0.21	-10.00	12.84	141.18
4300.00	0.33	236.81	-10.28	7.59	4299.69	0.04	-10.28	12.78	143.57
4400.00	0.29	269.14	-10.44	7.09	4399.69	0.18	-10.44	12.62	145.81
4500.00	0.27	272.11	-10.44	6.60	4499.69	0.03	-10.44	12.35	147.67
4600.00	0.29	259.51	-10.47	6.12	4599.69	0.07	-10.47	12.13	149.69
4700.00	0.31	248.83	-10.62	5.62	4699.68	0.06	-10.62	12.01	152.10
4800.00	0.26	238.70	-10.83	5.17	4799.68	0.07	-10.83	12.01	154.47
4900.00	0.43	228.53	-11.20	4.70	4899.68	0.18	-11.20	12.15	157.23
5000.00	0.42	238.66	-11.64	4.11	4999.68	0.08	-11.64	12.34	160.56
5100.00	0.48	226.59	-12.11	3.49	5099.67	0.11	-12.11	12.61	163.93
5200.00	0.47	222.92	-12.70	2.91	5199.67	0.03	-12.70	13.03	167.10
5300.00	0.67	222.34	-13.43	2.23	5299.67	0.20	-13.43	13.62	170.55
5400.00	0.59	220.67	-14.26	1.50	5399.66	0.08	-14.26	14.34	173.98
5500.00	0.76	216.93	-15.18	0.77	5499.65	0.17	-15.18	15.20	177.10
5600.00	0.73	229.11	-16.13	-0.11	5599.65	0.16	-16.13	16.13	180.39
5700.00	0.70	229.36	-16.94	-1.06	5699.64	0.02	-16.94	16.97	183.56
5800.00	0.69	230.64	-17.72	-1.99	5799.63	0.02	-17.72	17.84	186.40
5900.00	0.62	242.52	-18.36	-2.94	5899.62	0.15	-18.36	18.59	189.09
6028.00	1.21	214.44	-19.80	-4.32	6027.61	0.57	-19.80	20.26	192.31

Horizontal Displacement:  
 20.26 feet @ 192.31 degrees