



NorAm Drilling Company

A GLOBAL RIG COMPANY ASA

HOBBS OCD

OCT 27 2016

RECEIVED

Operator: XTO Energy

Well & Lease Number: Outrider Federal 6H

County: Lea

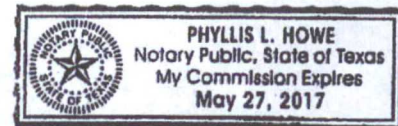
State of New Mexico

Deviation Report

Footage	Degree
300	0.65
600	0.75
900	2.39
1200	1.32
1700	1.23
2200	0.99
2700	1.25
3200	1.72
3700	1.58
4200	2.25
4700	3.44
5200	1.52
5700	0.99
6200	0.96
6700	0.07
7200	0.74
7700	0.66
8200	0.35
8700	1.01
9200	2.11
9700	2.40
10100	0.40

Completed by: Will Luker

Will Luker, Safety Director
NorAm Drilling Company



Appeared before me on: 8/24/16

Notary Public: Phyllis L. Howe

8400 N. Sam Houston Parkway West • Suite 120 • Houston, TX 77064 USA • Phone: (281) 598-9200 • Fax (281) 598-9220

1804 Rotary Drive • Humble, TX 77338 USA • Phone: (281) 540-7070 • Fax (281) 540-7071

www.noramdrilling.com

RRC #

Last ticket of Job: Y N

Job # Day 3



Ticket # 78-0001234

Rig # 19

Date 10-6-16

Customer Name

Customer AFE #

Customer R.O. #

Mailing Address

City

State

Zip

105 South Fourth Street

Petersburg

NM

88210

Block

Section

Survey

Township

Range

Field

Lease

Well #

County

State

Binnion II Federal Com

4

Chaves

NM

Well Depth:

Working Depth:

☐ 0' - 4,000'☐ 4,001' - 8,000'☐ 8,001' +☐ OIL☐ GAS☐ COND.☐ OTHER

BILLING

DESCRIPTION	RATE		TOTAL	OEB	WORKOVER EQUIPMENT	QTY.	RATE Hr / Day / Ea.	TOTAL
RIG & CREW TK	8	Hrs. @ 250 ⁰⁰ Per Hr.	2000 ⁰⁰	☐ Brine Water				
RIG & CREW OTK		Hrs. @ Per Hr		☐ Fresh Water				
SUPERVISOR		Hrs. @ Per Hr		☐ Disposal				
TRAVEL TIME TK		Hrs. @ Per Hr		☐ BOP		3		225 ⁰⁰
TRAVEL TIME OTK		Hrs. @ Per Hr		☐ Cement Unit		1	800 ⁰⁰	800 ⁰⁰
OEB	QTY.	Rate		☐ Cement TK		140	15 ⁰⁰	2100 ⁰⁰
☐ Tonge				☐ Cement OTK				
☐ Misc.				☐ Salt Gel				
☐ Misc. Casing Jack				☐ Calcium Chloride		2	50 ⁰⁰	100 ⁰⁰
☐ Per Diem				☐ Wireline Setup				
☐ H2S & Safety Equipment				☐ Misc. Wireline				
☐ Water Tank	1	50 ⁰⁰	50 ⁰⁰	☐ CIBP or CIBR Size				
☐ Misc.				☐ Misc.				
☐ Winch Truck				☐ Misc. Seals		1	50 ⁰⁰	50 ⁰⁰
☐ Transport / Vacuum				☐ Perforate 0891 1473		2	700 ⁰⁰	1400 ⁰⁰
☐ Misc.				☐ Jet Cutter / Nitro Gel Cut				
☐ Workstring (Big Mat)	1	50 ⁰⁰	50 ⁰⁰	☐ Misc.				
☐ Misc.				☐ Backhoe				
☐ MISCELLANEOUS:				☐ Misc.				
				☐ Welder Cut & Cap		1	400 ⁰⁰	400 ⁰⁰

OFF Estimated Bid

Estimated Bid

Daily Total \$7745⁰⁰

SAFETY MEETING TOPIC:

TIME STARTED 6:00

TIME STOPPED 2:00

DESCRIPTION OF WORK:

Drags crew to location well 55A meeting space on well
no pressure RTH tagged @ 1400 LHO 23.5 RTH out @ 896 LHO wireline
set packer @ 520 pumped 12 RTH @ 305 PSI 1 1/2 bbl @ minute double circulation
out at 8:45 purged 20000 gal 30m LHO RTH tagged @ 763
RTH RTH out @ 473 LHO wireline NID B.O.P. RTH out @ 763
circulated 30000 gal out at 8:45 clean circulated 110 gal to surface filled
9 1/4 LHO packer RTH is equipment moved all

REASON FOR ADDITIONAL CHARGES:

PAYROLL SECTION

EMPLOYEE	OTE	Emp. #	Revenue Hours	Yard Time Hours	TOTAL
OPERATOR <i>Sam Kennedy</i>			8		8
DERRICK <i>E. Edgar</i>					
FLOORHAND <i>Jesus Torres</i>					
FLOORHAND <i>Jesus Uribe</i>					

Globe Energy Services Representative

Other Person

Archer Survey Report

HOBBS OCD
OCT 27 2016
RECEIVED

Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well 6H
Project:	Lea County, NM	TVD Reference:	3587' GR + 25' KB = 3612' Datum Elevation @ 3612.00usft (Noram 25)
Site:	Outrider Federal 6H	MD Reference:	3587' GR + 25' KB = 3612' Datum Elevation @ 3612.00usft (Noram 25)
Well:	6H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Outrider Federal 6H				
Site Position:		Northing:	435,380.60 usft	Latitude:	32° 11' 42.74 N
From:	Map	Easting:	707,127.10 usft	Longitude:	103° 39' 49.51 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.36 °

Well	6H					
Well Position	+N/-S	0.00 usft	Northing:	435,380.60 usft	Latitude:	32° 11' 42.74 N
	+E/-W	0.00 usft	Easting:	707,127.10 usft	Longitude:	103° 39' 49.51 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,587.00 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/31/2015	7.02	59.98	48,209

Design	Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	167.46	

Survey Program	Date 1/24/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	10,100.00	Gyro (Lateral)	GYRO-NS	Gyrocompass Gyro
10,234.00	15,276.00	Archer MWD Surveys (Lateral)	MWD+HDGM	OWSG MWD + HDGM

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.49	37.03	100.00	0.34	0.26	-0.28	0.49	0.49	0.00
200.00	0.82	38.38	199.99	1.24	0.96	-1.01	0.33	0.33	1.35
300.00	0.65	34.93	299.98	2.27	1.73	-1.84	0.18	-0.17	-3.45
400.00	0.45	50.23	399.98	2.99	2.35	-2.40	0.25	-0.20	15.30
500.00	0.23	174.31	499.98	3.04	2.68	-2.38	0.61	-0.22	124.08
600.00	0.75	219.61	599.97	2.33	2.28	-1.78	0.61	0.52	45.30
700.00	1.41	221.37	699.96	0.91	1.05	-0.66	0.66	0.66	1.76

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Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
800.00	2.02	227.91	799.91	-1.20	-1.07	0.94	0.64	0.61	6.54
900.00	2.39	230.91	899.84	-3.69	-4.00	2.74	0.39	0.37	3.00
1,000.00	2.22	228.72	999.76	-6.29	-7.07	4.60	0.19	-0.17	-2.19
1,100.00	1.51	225.71	1,099.70	-8.49	-9.47	6.23	0.72	-0.71	-3.01
1,200.00	1.32	221.07	1,199.67	-10.27	-11.17	7.60	0.22	-0.19	-4.64
1,300.00	1.07	218.11	1,299.65	-11.88	-12.50	8.88	0.26	-0.25	-2.96
1,400.00	1.07	215.65	1,399.63	-13.37	-13.62	10.09	0.05	0.00	-2.46
1,500.00	1.03	212.53	1,499.62	-14.89	-14.65	11.35	0.07	-0.04	-3.12
1,600.00	1.16	208.32	1,599.60	-16.54	-15.62	12.75	0.15	0.13	-4.21
1,700.00	1.23	210.81	1,699.58	-18.35	-16.65	14.30	0.09	0.07	2.49
1,800.00	1.38	206.61	1,799.55	-20.35	-17.73	16.01	0.18	0.15	-4.20
1,900.00	0.96	204.58	1,899.53	-22.19	-18.62	17.61	0.42	-0.42	-2.03
2,000.00	1.08	212.08	1,999.51	-23.75	-19.47	18.95	0.18	0.12	7.50
2,100.00	1.28	220.50	2,099.49	-25.39	-20.70	20.29	0.26	0.20	8.42
2,200.00	0.99	211.26	2,199.47	-26.98	-21.87	21.59	0.34	-0.29	-9.24
2,300.00	0.97	201.50	2,299.46	-28.51	-22.63	22.91	0.17	-0.02	-9.76
2,400.00	1.10	182.38	2,399.44	-30.25	-22.98	24.54	0.37	0.13	-19.12
2,500.00	1.25	174.10	2,499.42	-32.30	-22.91	26.55	0.23	0.15	-8.28
2,600.00	1.38	161.19	2,599.39	-34.52	-22.41	28.83	0.32	0.13	-12.91
2,700.00	1.25	148.06	2,699.37	-36.59	-21.44	31.06	0.33	-0.13	-13.13
2,800.00	1.15	135.99	2,799.35	-38.24	-20.17	32.94	0.27	-0.10	-12.07
2,900.00	1.41	129.38	2,899.32	-39.74	-18.52	34.77	0.30	0.26	-6.61
3,000.00	1.62	122.13	2,999.29	-41.27	-16.37	36.73	0.28	0.21	-7.25
3,100.00	1.65	118.40	3,099.25	-42.71	-13.91	38.67	0.11	0.03	-3.73
3,200.00	1.72	115.70	3,199.20	-44.04	-11.29	40.54	0.11	0.07	-2.70
3,300.00	1.93	112.12	3,299.15	-45.33	-8.38	42.43	0.24	0.21	-3.58
3,400.00	1.97	119.26	3,399.09	-46.80	-5.32	44.53	0.25	0.04	7.14
3,500.00	2.08	120.38	3,499.03	-48.56	-2.25	46.91	0.12	0.11	1.12
3,600.00	2.29	128.39	3,598.96	-50.72	0.88	49.70	0.37	0.21	8.01
3,700.00	1.58	124.45	3,698.90	-52.74	3.58	52.26	0.72	-0.71	-3.94
3,800.00	1.34	120.46	3,798.87	-54.11	5.73	54.06	0.26	-0.24	-3.99
3,900.00	1.29	113.04	3,898.84	-55.14	7.77	55.52	0.18	-0.05	-7.42
4,000.00	1.45	116.03	3,998.81	-56.14	9.94	56.96	0.18	0.16	2.99
4,100.00	1.69	120.59	4,098.78	-57.45	12.35	58.76	0.27	0.24	4.56
4,200.00	2.25	123.78	4,198.72	-59.29	15.25	61.18	0.57	0.56	3.19
4,300.00	2.72	128.73	4,298.62	-61.86	18.73	64.46	0.52	0.47	4.95
4,400.00	3.50	130.43	4,398.47	-65.33	22.91	68.74	0.79	0.78	1.70
4,500.00	4.10	131.16	4,498.25	-69.66	27.92	74.06	0.60	0.60	0.73
4,600.00	3.88	132.92	4,598.01	-74.32	33.09	79.73	0.25	-0.22	1.76
4,700.00	3.44	135.73	4,697.81	-78.77	37.66	85.07	0.48	-0.44	2.81
4,800.00	2.79	137.93	4,797.66	-82.72	41.39	89.74	0.66	-0.65	2.20
4,900.00	2.01	138.24	4,897.57	-85.84	44.19	93.39	0.78	-0.78	0.31

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Well:	6H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	2.09	142.92	4,997.51	-88.60	46.46	96.57	0.19	0.08	4.68
5,100.00	1.78	147.21	5,097.45	-91.36	48.40	99.69	0.34	-0.31	4.29
5,200.00	1.52	150.34	5,197.41	-93.82	49.89	102.42	0.28	-0.26	3.13
5,300.00	1.42	158.63	5,297.38	-96.13	51.00	104.91	0.23	-0.10	8.29
5,400.00	1.27	164.96	5,397.35	-98.35	51.74	107.24	0.21	-0.15	6.33
5,500.00	0.97	168.87	5,497.33	-100.25	52.19	109.19	0.31	-0.30	3.91
5,600.00	1.10	170.39	5,597.31	-102.03	52.51	111.00	0.13	0.13	1.52
5,700.00	0.99	179.75	5,697.30	-103.84	52.68	112.80	0.20	-0.11	9.36
5,800.00	0.92	186.79	5,797.28	-105.50	52.59	114.40	0.14	-0.07	7.04
5,900.00	1.11	190.36	5,897.27	-107.25	52.32	116.05	0.20	0.19	3.57
6,000.00	0.99	189.29	5,997.25	-109.06	52.00	117.75	0.12	-0.12	-1.07
6,100.00	0.78	187.16	6,097.24	-110.58	51.78	119.19	0.21	-0.21	-2.13
6,200.00	0.96	195.53	6,197.23	-112.07	51.47	120.57	0.22	0.18	8.37
6,300.00	0.80	202.62	6,297.21	-113.52	50.98	121.88	0.19	-0.16	7.09
6,400.00	0.75	210.23	6,397.21	-114.73	50.38	122.93	0.11	-0.05	7.61
6,500.00	0.89	215.99	6,497.20	-115.92	49.59	123.92	0.16	0.14	5.76
6,600.00	0.15	247.48	6,597.19	-116.60	49.02	124.46	0.77	-0.74	31.49
6,700.00	0.07	207.64	6,697.19	-116.70	48.87	124.53	0.11	-0.08	-39.84
6,800.00	0.18	233.38	6,797.19	-116.85	48.71	124.64	0.12	0.11	25.74
6,900.00	0.28	226.47	6,897.19	-117.11	48.41	124.83	0.10	0.10	-6.91
7,000.00	0.35	232.40	6,997.19	-117.47	47.99	125.09	0.08	0.07	5.93
7,100.00	0.11	240.80	7,097.19	-117.70	47.67	125.24	0.24	-0.24	8.40
7,200.00	0.74	223.27	7,197.18	-118.22	47.14	125.63	0.64	0.63	-17.53
7,300.00	0.57	212.85	7,297.18	-119.11	46.43	126.35	0.21	-0.17	-10.42
7,400.00	0.95	226.35	7,397.17	-120.10	45.56	127.12	0.42	0.38	13.50
7,500.00	1.13	230.55	7,497.15	-121.30	44.20	128.00	0.20	0.18	4.20
7,600.00	0.86	233.17	7,597.14	-122.37	42.83	128.75	0.27	-0.27	2.62
7,700.00	0.66	227.70	7,697.13	-123.21	41.81	129.35	0.21	-0.20	-5.47
7,800.00	0.87	225.68	7,797.12	-124.13	40.84	130.03	0.21	0.21	-2.02
7,900.00	0.29	233.81	7,897.11	-124.81	40.09	130.53	0.58	-0.58	8.13
8,000.00	0.58	194.62	7,997.11	-125.45	39.76	131.09	0.40	0.29	-39.19
8,100.00	0.68	180.53	8,097.10	-126.53	39.63	132.11	0.18	0.10	-14.09
8,200.00	0.35	169.86	8,197.10	-127.42	39.67	133.00	0.34	-0.33	-10.67
8,300.00	0.60	152.71	8,297.10	-128.19	39.97	133.81	0.28	0.25	-17.15
8,400.00	0.67	165.40	8,397.09	-129.22	40.35	134.90	0.16	0.07	12.69
8,500.00	0.56	170.32	8,497.09	-130.27	40.58	135.97	0.12	-0.11	4.92
8,600.00	0.77	177.55	8,597.08	-131.42	40.70	137.12	0.23	0.21	7.23
8,700.00	1.01	175.37	8,697.07	-132.97	40.80	138.66	0.24	0.24	-2.18
8,800.00	1.11	176.33	8,797.05	-134.82	40.93	140.49	0.10	0.10	0.96
8,900.00	1.28	178.74	8,897.03	-136.90	41.01	142.54	0.18	0.17	2.41
9,000.00	1.27	180.10	8,997.00	-139.12	41.04	144.72	0.03	-0.01	1.36
9,100.00	1.68	185.79	9,096.97	-141.69	40.89	147.19	0.43	0.41	5.69

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Design:	Surveys	Database:	EDM R5000.1 MULTI

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,200.00	2.11	186.59	9,196.91	-144.98	40.53	150.32	0.43	0.43	0.80
9,300.00	2.65	188.03	9,296.83	-149.10	39.99	154.22	0.54	0.54	1.44
9,400.00	3.34	191.28	9,396.69	-154.24	39.10	159.05	0.71	0.69	3.25
9,500.00	3.88	194.31	9,496.49	-160.38	37.70	164.74	0.57	0.54	3.03
9,600.00	3.26	197.50	9,596.30	-166.37	36.00	170.22	0.65	-0.62	3.19
9,700.00	2.40	199.49	9,696.17	-171.05	34.45	174.45	0.87	-0.86	1.99
9,800.00	1.65	202.46	9,796.11	-174.36	33.20	177.41	0.76	-0.75	2.97
9,900.00	0.82	198.89	9,896.09	-176.36	32.42	179.20	0.83	-0.83	-3.57
10,000.00	0.66	195.88	9,996.08	-177.60	32.03	180.31	0.16	-0.16	-3.01
10,100.00	0.40	147.70	10,096.08	-178.44	32.06	181.15	0.49	-0.26	-48.18
10,234.00	6.90	200.80	10,229.74	-186.37	29.45	188.32	4.98	4.85	39.63
10,256.00	9.50	199.60	10,251.51	-189.32	28.37	190.96	11.84	11.82	-5.45
10,287.00	13.70	199.10	10,281.87	-195.20	26.31	196.26	13.55	13.55	-1.61
10,319.00	16.90	199.40	10,312.73	-203.17	23.52	203.43	10.00	10.00	0.94
10,351.00	19.40	196.60	10,343.14	-212.65	20.46	212.02	8.27	7.81	-8.75
10,382.00	21.90	194.70	10,372.15	-223.18	17.52	221.66	8.35	8.06	-6.13
10,414.00	24.40	191.70	10,401.57	-235.43	14.67	233.00	8.64	7.81	-9.38
10,445.00	26.80	188.30	10,429.52	-248.62	12.36	245.37	9.07	7.74	-10.97
10,477.00	30.30	185.30	10,457.63	-263.80	10.57	259.80	11.82	10.94	-9.38
10,508.00	33.40	184.10	10,483.96	-280.10	9.24	275.42	10.21	10.00	-3.87
10,540.00	36.00	183.10	10,510.27	-298.28	8.10	292.92	8.32	8.13	-3.13
10,587.00	39.70	183.40	10,547.37	-327.07	6.46	320.67	7.88	7.87	0.64
10,635.00	43.20	184.10	10,583.34	-358.77	4.38	351.16	7.36	7.29	1.46
10,682.00	47.20	183.50	10,616.46	-392.04	2.17	383.16	8.56	8.51	-1.28
10,729.00	51.00	180.50	10,647.23	-427.53	0.96	417.54	9.41	8.09	-6.38
10,776.00	56.80	178.90	10,674.91	-465.48	1.18	454.63	12.64	12.34	-3.40
10,824.00	61.70	180.20	10,699.44	-506.72	1.49	494.96	10.47	10.21	2.71
10,871.00	65.00	181.30	10,720.52	-548.72	0.94	535.83	7.33	7.02	2.34
10,919.00	68.90	182.60	10,739.31	-592.85	-0.57	578.58	8.50	8.13	2.71
10,966.00	70.60	183.20	10,755.58	-636.89	-2.81	621.08	3.81	3.62	1.28
11,013.00	74.30	184.50	10,769.75	-681.59	-5.82	664.06	8.30	7.87	2.77
11,060.00	78.60	185.10	10,780.76	-727.11	-9.64	707.67	9.23	9.15	1.28
11,108.00	81.60	184.40	10,789.01	-774.23	-13.56	752.81	6.41	6.25	-1.46
11,155.00	85.00	181.70	10,794.50	-820.83	-16.04	797.76	9.21	7.23	-5.74
11,202.00	87.40	180.70	10,797.61	-867.71	-17.02	843.31	5.53	5.11	-2.13
11,249.00	89.80	181.80	10,798.76	-914.68	-18.04	888.94	5.62	5.11	2.34
11,297.00	91.00	181.70	10,798.42	-962.66	-19.51	935.45	2.51	2.50	-0.21
11,391.00	90.40	182.40	10,797.28	-1,056.59	-22.87	1,026.41	0.98	-0.64	0.74
11,485.00	91.20	182.40	10,795.96	-1,150.49	-26.81	1,117.23	0.85	0.85	0.00
11,580.00	89.10	182.80	10,795.71	-1,245.39	-31.12	1,208.92	2.25	-2.21	0.42
11,674.00	89.50	183.10	10,796.86	-1,339.26	-35.95	1,299.50	0.53	0.43	0.32
11,769.00	90.80	183.00	10,796.61	-1,434.12	-41.01	1,391.00	1.37	1.37	-0.11

Archer Survey Report

Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well 6H
Project:	Lea County, NM	TVD Reference:	3587' GR + 25' KB = 3612' Datum Elevation @ 3612.00usft (Noram 25)
Site:	Outrider Federal 6H	MD Reference:	3587' GR + 25' KB = 3612' Datum Elevation @ 3612.00usft (Noram 25)
Well:	6H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,863.00	89.60	182.90	10,796.29	-1,528.00	-45.85	1,481.59	1.28	-1.28	-0.11
11,958.00	89.50	182.70	10,797.03	-1,622.88	-50.49	1,573.20	0.24	-0.11	-0.21
12,052.00	90.60	182.50	10,796.95	-1,716.78	-54.75	1,663.94	1.19	1.17	-0.21
12,146.00	89.90	182.20	10,796.54	-1,810.70	-58.61	1,754.78	0.81	-0.74	-0.32
12,241.00	90.70	182.50	10,796.04	-1,905.62	-62.50	1,846.58	0.90	0.84	0.32
12,335.00	89.40	182.00	10,795.96	-1,999.54	-66.19	1,937.47	1.48	-1.38	-0.53
12,430.00	88.40	180.20	10,797.78	-2,094.50	-68.01	2,029.77	2.17	-1.05	-1.89
12,525.00	89.00	179.60	10,799.94	-2,189.48	-67.85	2,122.51	0.89	0.63	-0.63
12,619.00	90.50	179.40	10,800.35	-2,283.47	-67.03	2,214.44	1.61	1.60	-0.21
12,713.00	89.80	180.80	10,800.10	-2,377.47	-67.19	2,306.16	1.67	-0.74	1.49
12,808.00	90.30	181.40	10,800.02	-2,472.45	-69.02	2,398.48	0.82	0.53	0.63
12,902.00	91.60	181.30	10,798.46	-2,566.41	-71.23	2,489.71	1.39	1.38	-0.11
12,997.00	90.50	181.50	10,796.72	-2,661.36	-73.55	2,581.90	1.18	-1.16	0.21
13,092.00	90.70	181.90	10,795.73	-2,756.31	-76.37	2,673.98	0.47	0.21	0.42
13,186.00	89.50	182.10	10,795.56	-2,850.26	-79.65	2,764.96	1.29	-1.28	0.21
13,281.00	87.50	182.10	10,798.05	-2,945.15	-83.13	2,856.84	2.11	-2.11	0.00
13,376.00	88.00	182.20	10,801.78	-3,040.01	-86.69	2,948.66	0.54	0.53	0.11
13,470.00	89.40	182.00	10,803.91	-3,133.92	-90.13	3,039.59	1.50	1.49	-0.21
13,565.00	91.10	181.60	10,803.50	-3,228.87	-93.12	3,131.62	1.84	1.79	-0.42
13,659.00	89.50	181.20	10,803.00	-3,322.84	-95.41	3,222.85	1.75	-1.70	-0.43
13,753.00	90.00	181.20	10,803.41	-3,416.82	-97.38	3,314.16	0.53	0.53	0.00
13,848.00	92.00	180.90	10,801.76	-3,511.78	-99.12	3,406.48	2.13	2.11	-0.32
13,943.00	90.90	181.10	10,799.35	-3,606.74	-100.78	3,498.81	1.18	-1.16	0.21
14,037.00	89.40	181.20	10,799.11	-3,700.71	-102.67	3,590.13	1.60	-1.60	0.11
14,132.00	88.00	181.50	10,801.26	-3,795.66	-104.91	3,682.33	1.51	-1.47	0.32
14,226.00	88.40	182.00	10,804.21	-3,889.57	-107.77	3,773.38	0.68	0.43	0.53
14,321.00	90.20	181.70	10,805.38	-3,984.51	-110.84	3,865.38	1.92	1.89	-0.32
14,416.00	91.90	181.70	10,803.63	-4,079.45	-113.66	3,957.45	1.79	1.79	0.00
14,510.00	91.10	182.20	10,801.17	-4,173.36	-116.86	4,048.42	1.00	-0.85	0.53
14,605.00	89.00	181.40	10,801.09	-4,268.31	-119.84	4,140.46	2.37	-2.21	-0.84
14,699.00	89.80	181.10	10,802.08	-4,362.28	-121.89	4,231.74	0.91	0.85	-0.32
14,794.00	91.30	180.80	10,801.16	-4,457.26	-123.47	4,324.11	1.61	1.58	-0.32
14,889.00	90.00	180.90	10,800.09	-4,552.24	-124.87	4,416.52	1.37	-1.37	0.11
14,983.00	91.00	180.60	10,799.27	-4,646.23	-126.10	4,508.00	1.11	1.06	-0.32
15,079.00	90.50	180.20	10,798.01	-4,742.22	-126.78	4,601.55	0.67	-0.52	-0.42
15,173.00	91.40	180.10	10,796.45	-4,836.20	-127.02	4,693.24	0.96	0.96	-0.11
15,228.00	92.20	179.50	10,794.72	-4,891.17	-126.83	4,746.95	1.82	1.45	-1.09
15,276.00	92.20	179.50	10,792.88	-4,939.14	-126.41	4,793.86	0.00	0.00	0.00

Archer

Survey Report

Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well 6H
Project:	Lea County, NM	TVD Reference:	3587' GR + 25' KB = 3612' Datum Elevation @ 3612.00usft (Noram 25)
Site:	Outrider Federal 6H	MD Reference:	3587' GR + 25' KB = 3612' Datum Elevation @ 3612.00usft (Noram 25)
Well:	6H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM R5000.1 MULTI

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL Outrider Federal - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	435,380.60	707,127.10	32° 11' 42.74 N	103° 39' 49.51 W
BHL Outrider Federal - actual wellpath hits target center - Point	0.00	0.00	10,792.8 8	-4,939.14	-126.41	430,441.46	707,000.69	32° 10' 53.87 N	103° 39' 51.34 W
LP Outrider Federal 6 - actual wellpath hits target center - Point	0.00	0.00	10,798.7 6	-914.68	-18.04	434,465.92	707,109.05	32° 11' 33.69 N	103° 39' 49.79 W



REC'D/MIDLAND

JAN 12 2016

HOBBS OCD

OCT 27 2016

RECEIVED

January 6, 2016

XTO Energy
200 N. Lorraine, Ste 800
Midland, Texas 79707

Attn: Drilling Department

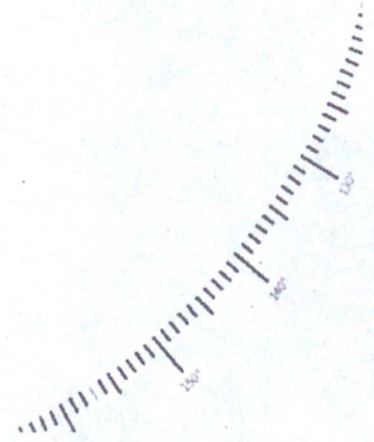
Re: **Outrider Federal No 006H**

Please find enclosed a copy of the survey from 0' to 11,000' ran on the above mentioned well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,


Jennifer Byerly
Operations



XTOENERGY

Company: XTO Energy
Lease/Well: Outrider Federal No/006H



Rig Name: NorAm 25
State/County: New Mexico/Lea
VS-Azi: 0.00 Degrees
Latitude: 32.19520, Longitude: -103.66370
Grid North = True North -0.36 degs (NAD 27)
Grid Correction Applied = -0.36 degs

HOBBS OCD

OCT 27 2016

RECEIVED

Depth Reference : RKB= 25 Feet
DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: outrider federal #6h.ut
Minimum Curvature Method
Report Date/Time: 1/8/2016 / 10:15
VES Survey International
West Texas
432-563-5444
Surveyor: Eric Warner
Outrider Federal No 006H / API 30-025-42932

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.49	37.03	100.00	0.34	0.26	0.34	0.43	37.03	0.49
200.00	0.82	38.38	199.99	1.25	0.96	1.25	1.57	37.55	0.33
300.00	0.65	34.93	299.98	2.28	1.73	2.28	2.86	37.29	0.18
400.00	0.45	50.23	399.98	2.99	2.36	2.99	3.81	38.25	0.25
500.00	0.23	174.31	499.98	3.04	2.68	3.04	4.05	41.33	0.60
600.00	0.75	219.61	599.97	2.34	2.28	2.34	3.27	44.23	0.62
700.00	1.41	221.37	699.96	0.91	1.05	0.91	1.39	48.95	0.66
800.00	2.02	227.91	799.91	-1.19	-1.07	-1.19	1.60	222.90	0.64
900.00	2.39	230.91	899.84	-3.68	-4.00	-3.68	5.44	227.32	0.39
1000.00	2.22	228.72	999.76	-6.28	-7.07	-6.28	9.45	228.40	0.19
1100.00	1.51	225.71	1099.70	-8.47	-9.47	-8.47	12.71	228.17	0.71
1200.00	1.32	221.07	1199.67	-10.26	-11.17	-10.26	15.17	227.42	0.22
1300.00	1.07	218.11	1299.65	-11.87	-12.50	-11.87	17.24	226.49	0.26
1400.00	1.07	215.65	1399.63	-13.36	-13.62	-13.36	19.08	225.56	0.05
1500.00	1.03	212.53	1499.62	-14.88	-14.65	-14.88	20.89	224.56	0.07
1600.00	1.16	208.32	1599.60	-16.53	-15.62	-16.53	22.74	223.37	0.15

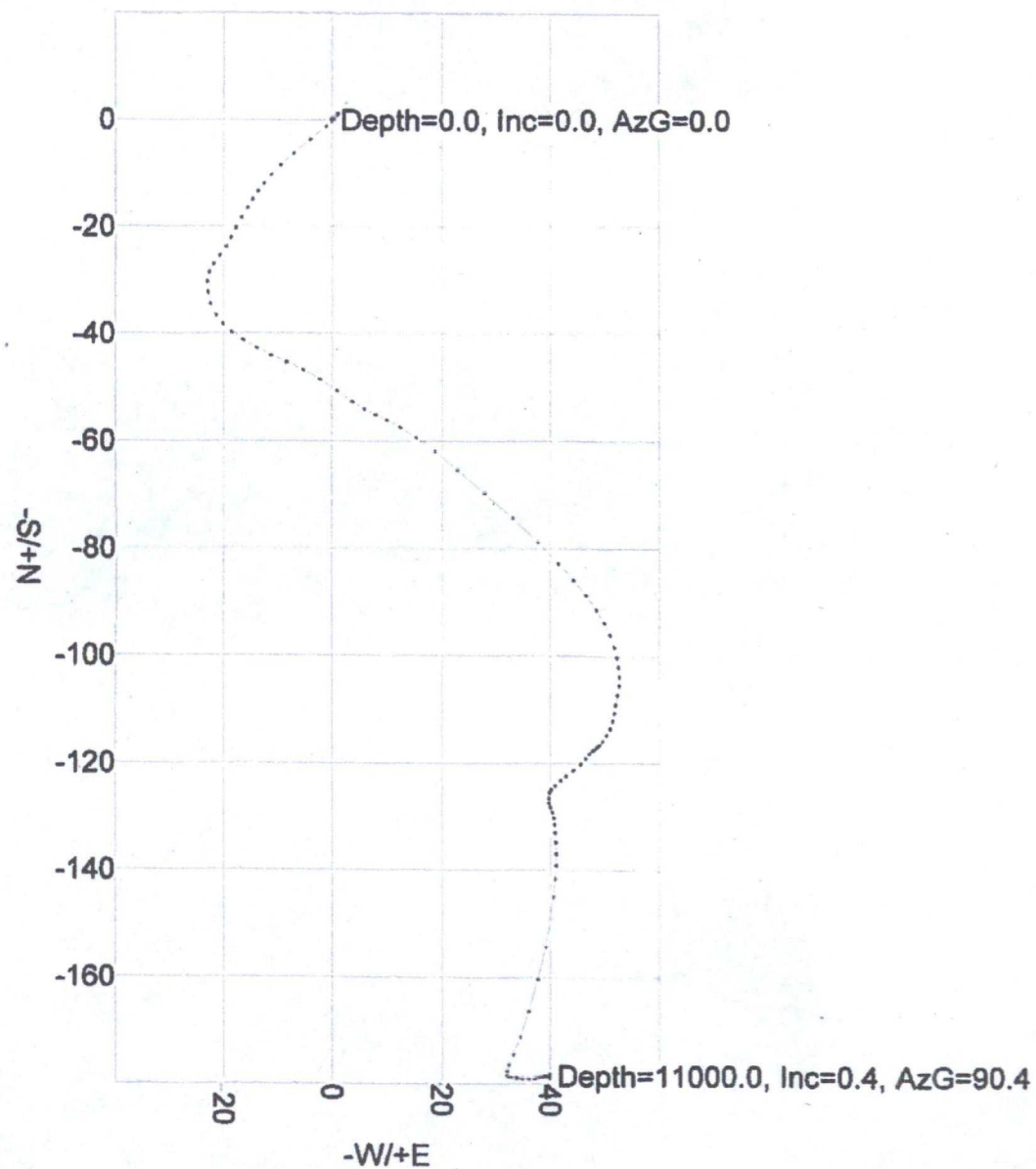
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.23	210.81	1699.68	-18.34	-16.65	-18.34	24.77	222.22	0.08
1800.00	1.38	208.61	1799.65	-20.34	-17.73	-20.34	26.98	221.09	0.18
1900.00	0.96	204.68	1899.63	-22.18	-18.62	-22.18	28.96	220.02	0.42
2000.00	1.08	212.08	1999.51	-23.74	-19.47	-23.74	30.71	219.36	0.18
2100.00	1.28	220.50	2099.49	-25.39	-20.70	-25.39	32.76	219.19	0.26
2200.00	0.99	211.26	2199.47	-26.98	-21.87	-26.98	34.73	219.03	0.34
2300.00	0.97	201.50	2299.46	-28.50	-22.63	-28.50	36.40	218.45	0.17
2400.00	1.10	182.38	2399.44	-30.25	-22.98	-30.25	37.99	217.22	0.37
2500.00	1.25	174.10	2499.42	-32.30	-22.91	-32.30	39.60	215.35	0.22
2600.00	1.38	161.19	2599.39	-34.62	-22.41	-34.62	41.15	212.99	0.32
2700.00	1.25	148.06	2699.37	-36.58	-21.44	-36.58	42.40	210.38	0.33
2800.00	1.15	135.99	2799.35	-38.23	-20.17	-38.23	43.22	207.82	0.27
2900.00	1.41	129.38	2899.32	-39.73	-18.53	-39.73	43.84	205.00	0.30
3000.00	1.62	122.13	2999.29	-41.26	-16.38	-41.26	44.39	201.65	0.28
3100.00	1.65	118.40	3099.25	-42.70	-13.91	-42.70	44.91	198.04	0.11
3200.00	1.72	115.70	3199.20	-44.04	-11.29	-44.04	45.46	194.38	0.11
3300.00	1.93	112.12	3299.15	-45.32	-8.37	-45.32	46.09	190.47	0.24
3400.00	1.97	119.26	3399.09	-46.80	-5.31	-46.80	47.10	186.48	0.25
3500.00	2.08	120.38	3499.03	-48.65	-2.25	-48.65	48.60	182.66	0.12
3600.00	2.29	128.39	3598.96	-50.71	0.87	-50.71	50.71	179.01	0.37
3700.00	1.58	124.45	3698.90	-52.72	3.57	-52.72	52.84	176.13	0.72
3800.00	1.34	120.46	3798.87	-54.09	5.71	-54.09	54.39	173.97	0.25
3900.00	1.29	113.04	3898.84	-55.13	7.76	-55.13	55.67	171.99	0.18
4000.00	1.45	116.03	3998.81	-56.12	9.93	-56.12	56.99	169.97	0.18
4100.00	1.69	120.59	4098.78	-57.43	12.34	-57.43	58.74	167.88	0.27
4200.00	2.25	123.78	4198.72	-59.27	15.24	-59.27	61.20	165.58	0.57
4300.00	2.72	128.73	4298.62	-61.85	18.72	-61.85	64.62	163.16	0.52
4400.00	3.50	130.43	4398.48	-65.31	22.89	-65.31	69.21	160.58	0.79
4500.00	4.10	131.16	4498.26	-69.64	27.91	-69.64	75.03	158.16	0.60
4600.00	3.88	132.92	4598.01	-74.30	33.08	-74.30	81.33	156.00	0.25
4700.00	3.44	135.73	4697.81	-78.75	37.65	-78.75	87.29	154.45	0.48
4800.00	2.79	137.93	4797.66	-82.71	41.37	-82.71	92.48	153.42	0.65
4900.00	2.01	138.24	4897.57	-85.82	44.17	-85.82	96.52	152.77	0.78
5000.00	2.09	142.92	4997.51	-88.59	46.44	-88.59	100.02	152.33	0.18
5100.00	1.78	147.21	5097.45	-91.35	48.38	-91.35	103.37	152.09	0.34
5200.00	1.52	150.34	5197.41	-93.81	49.88	-93.81	106.24	152.00	0.28
5300.00	1.42	158.83	5297.38	-96.11	50.99	-96.11	108.80	152.05	0.23
5400.00	1.27	164.96	5397.35	-98.34	51.73	-98.34	111.12	152.26	0.21
5500.00	0.97	168.87	5497.33	-100.25	52.18	-100.25	113.01	152.50	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	1.10	170.39	5597.31	-102.02	52.50	-102.02	114.74	152.77	0.13
5700.00	0.99	179.75	5697.30	-103.83	52.67	-103.83	116.43	153.10	0.20
5800.00	0.92	186.79	5797.28	-105.49	52.58	-105.49	117.87	153.81	0.14
5900.00	1.11	190.36	5897.27	-107.23	52.31	-107.23	119.31	154.00	0.20
6000.00	0.99	189.29	5997.25	-109.04	52.00	-109.04	120.80	154.51	0.12
6100.00	0.78	187.16	6097.24	-110.57	51.77	-110.57	122.09	154.91	0.22
6200.00	0.96	195.53	6197.23	-112.05	51.46	-112.05	123.30	155.33	0.22
6300.00	0.80	202.62	6297.22	-113.49	50.97	-113.49	124.41	155.81	0.20
6400.00	0.75	210.23	6397.21	-114.70	50.37	-114.70	125.27	156.29	0.11
6500.00	0.89	215.99	6497.20	-115.89	49.59	-115.89	126.06	156.84	0.17
6600.00	0.15	247.48	6597.19	-116.57	49.01	-116.57	126.46	157.20	0.77
6700.00	0.07	207.64	6697.19	-116.67	48.87	-116.67	126.49	157.27	0.11
6800.00	0.18	233.38	6797.19	-116.82	48.72	-116.82	126.57	157.36	0.12
6900.00	0.28	226.47	6897.19	-117.08	48.42	-117.08	126.69	157.53	0.10
7000.00	0.35	232.40	6997.19	-117.43	48.00	-117.43	126.86	157.77	0.08
7100.00	0.11	240.80	7097.19	-117.66	47.68	-117.66	126.95	157.94	0.25
7200.00	0.74	223.27	7197.18	-118.18	47.15	-118.18	127.24	158.25	0.84
7300.00	0.57	212.85	7297.18	-119.07	46.43	-119.07	127.80	158.70	0.21
7400.00	0.95	226.35	7397.17	-120.06	45.57	-120.06	128.42	159.22	0.42
7500.00	1.13	230.55	7497.15	-121.26	44.20	-121.26	129.06	159.97	0.20
7600.00	0.86	233.17	7597.14	-122.34	42.84	-122.34	129.62	160.70	0.27
7700.00	0.66	227.70	7697.13	-123.17	41.81	-123.17	130.08	161.25	0.22
7800.00	0.87	225.68	7797.12	-124.09	40.85	-124.09	130.84	161.78	0.21
7900.00	0.29	233.81	7897.11	-124.77	40.10	-124.77	131.06	162.19	0.58
8000.00	0.58	194.62	7997.11	-125.42	39.76	-125.42	131.57	162.41	0.40
8100.00	0.68	180.53	8097.10	-126.50	39.63	-126.50	132.57	162.61	0.19
8200.00	0.35	169.86	8197.10	-127.40	39.67	-127.40	133.44	162.70	0.34
8300.00	0.60	152.71	8297.10	-128.17	39.97	-128.17	134.26	162.86	0.28
8400.00	0.67	165.40	8397.09	-129.19	40.35	-129.19	135.35	162.95	0.16
8500.00	0.56	170.32	8497.09	-130.24	40.58	-130.24	136.42	162.99	0.11
8600.00	0.77	177.55	8597.08	-131.40	40.69	-131.40	137.55	162.79	0.22
8700.00	1.01	175.37	8697.07	-132.95	40.79	-132.95	139.06	162.94	0.25
8800.00	1.11	176.33	8797.05	-134.79	40.93	-134.79	140.87	163.11	0.10
8900.00	1.28	178.74	8897.03	-136.87	41.01	-136.87	142.89	163.32	0.18
9000.00	1.27	180.10	8997.00	-139.10	41.04	-139.10	145.02	163.56	0.03
9100.00	1.68	185.79	9096.97	-141.66	40.89	-141.66	147.44	163.90	0.43
9200.00	2.11	186.59	9196.91	-144.95	40.53	-144.95	150.50	164.38	0.43
9300.00	2.65	188.03	9296.83	-149.07	39.99	-149.07	154.34	164.98	0.54
9400.00	3.34	191.28	9396.69	-154.21	39.10	-154.21	159.09	165.77	0.71

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9500.00	3.88	194.31	9496.49	-160.35	37.69	-160.35	164.72	166.77	0.58
9600.00	3.26	197.60	9596.30	-166.33	36.00	-166.33	170.19	167.79	0.66
9700.00	2.40	199.49	9696.18	-171.02	34.45	-171.02	174.45	168.61	0.86
9800.00	1.65	202.46	9796.11	-174.33	33.20	-174.33	177.46	169.22	0.76
9900.00	0.82	198.89	9896.09	-176.34	32.42	-176.34	179.29	169.58	0.84
10000.00	0.66	195.88	9996.08	-177.57	32.03	-177.57	180.43	169.78	0.17
10100.00	0.40	147.70	10096.08	-178.41	32.06	-178.41	181.27	169.81	0.49
10200.00	0.61	89.10	10196.07	-178.70	32.78	-178.70	181.68	169.81	0.53
10300.00	0.52	99.75	10296.07	-178.76	33.76	-178.76	181.92	169.31	0.14
10400.00	0.66	101.53	10396.06	-178.95	34.77	-178.95	182.30	169.01	0.14
10500.00	0.79	87.77	10496.05	-179.04	36.01	-179.04	182.63	168.63	0.22
10600.00	0.55	76.89	10596.05	-178.91	37.17	-178.91	182.73	168.26	0.26
10700.00	0.43	69.74	10696.04	-178.66	38.00	-178.66	182.66	167.99	0.13
10800.00	0.29	80.92	10796.04	-178.49	38.60	-178.49	182.62	167.80	0.16
10900.00	0.31	85.84	10896.04	-178.43	39.13	-178.43	182.67	167.63	0.03
11000.00	0.35	90.38	10996.04	-178.42	39.70	-178.42	182.78	167.45	0.05

XTOENERGY

VES Survey International
West Texas
432-563-5444
Surveyor: Eric Warner
Outrider Federal No 006H / API 30-025-42932



V.E.S. Survey Date: 12/29/2015

XTOENERGY

Company: XTO Energy
Lease/Well: Outrider Federal No/006H



Rig Name: NorAm 25
State/County: New Mexico/Lea
VS-Azi: 0.00 Degrees
Latitude: 32.19520, Longitude: -103.66370
Grid North = True North -0.36 degs (NAD 27)
Grid Correction Applied = -0.36 degs

HOBBS OCD

OCT 27 2016

RECEIVED

Depth Reference : RKB= 25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: outrider federal #6h.ut

Minimum Curvature Method

Report Date/Time: 1/6/2016 / 10:15

VES Survey International

West Texas

432-563-5444

Surveyor: Eric Warner

Outrider Federal No 006H / API 30-025-42932

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----
100.00	0.49	37.03	100.00	0.34	0.26	0.34	0.43	37.03	0.49
200.00	0.82	38.38	199.99	1.25	0.96	1.25	1.57	37.55	0.33
300.00	0.65	34.93	299.98	2.28	1.73	2.28	2.86	37.29	0.18
400.00	0.45	50.23	399.98	2.99	2.36	2.99	3.81	38.25	0.25
500.00	0.23	174.31	499.98	3.04	2.68	3.04	4.05	41.33	0.60
600.00	0.75	219.61	599.97	2.34	2.28	2.34	3.27	44.23	0.62
700.00	1.41	221.37	699.96	0.91	1.05	0.91	1.39	48.95	0.66
800.00	2.02	227.91	799.91	-1.19	-1.07	-1.19	1.60	222.00	0.64
900.00	2.39	230.91	899.84	-3.68	-4.00	-3.68	5.44	227.32	0.39
1000.00	2.22	228.72	999.76	-6.28	-7.07	-6.28	9.45	228.40	0.19
1100.00	1.51	225.71	1099.70	-8.47	-9.47	-8.47	12.71	228.17	0.71
1200.00	1.32	221.07	1199.67	-10.26	-11.17	-10.26	15.17	227.42	0.22
1300.00	1.07	218.11	1299.66	-11.87	-12.50	-11.87	17.24	226.49	0.26
1400.00	1.07	215.65	1399.63	-13.36	-13.62	-13.36	19.08	225.56	0.05
1500.00	1.03	212.53	1499.62	-14.88	-14.65	-14.88	20.89	224.56	0.07
1600.00	1.16	208.32	1599.60	-16.53	-15.62	-16.53	22.74	223.37	0.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.23	210.81	1699.58	-18.34	-16.65	-18.34	24.77	222.22	0.08
1800.00	1.38	206.61	1799.55	-20.34	-17.73	-20.34	26.98	221.09	0.18
1900.00	0.96	204.58	1899.53	-22.18	-18.62	-22.18	28.96	220.02	0.42
2000.00	1.08	212.08	1999.51	-23.74	-19.47	-23.74	30.71	219.36	0.18
2100.00	1.28	220.50	2099.49	-25.39	-20.70	-25.39	32.76	219.19	0.26
2200.00	0.99	211.26	2199.47	-26.98	-21.87	-26.98	34.73	219.03	0.34
2300.00	0.97	201.50	2299.46	-28.50	-22.63	-28.50	36.40	218.45	0.17
2400.00	1.10	182.38	2399.44	-30.25	-22.98	-30.25	37.99	217.22	0.37
2500.00	1.25	174.10	2499.42	-32.30	-22.91	-32.30	39.60	216.36	0.22
2600.00	1.38	161.19	2599.39	-34.52	-22.41	-34.52	41.15	212.99	0.32
2700.00	1.25	148.06	2699.37	-36.58	-21.44	-36.58	42.40	210.38	0.33
2800.00	1.15	135.99	2799.35	-38.23	-20.17	-38.23	43.22	207.82	0.27
2900.00	1.41	129.38	2899.32	-39.73	-18.53	-39.73	43.84	205.00	0.30
3000.00	1.62	122.13	2999.29	-41.26	-16.38	-41.26	44.39	201.65	0.28
3100.00	1.65	118.40	3099.25	-42.70	-13.91	-42.70	44.91	198.04	0.11
3200.00	1.72	115.70	3199.20	-44.04	-11.29	-44.04	45.46	194.38	0.11
3300.00	1.93	112.12	3299.15	-45.32	-8.37	-45.32	46.09	190.47	0.24
3400.00	1.97	119.26	3399.09	-46.80	-5.31	-46.80	47.10	186.48	0.25
3500.00	2.08	120.38	3499.03	-48.55	-2.25	-48.55	48.60	182.66	0.12
3600.00	2.29	128.39	3598.96	-50.71	0.87	-50.71	50.71	179.01	0.37
3700.00	1.58	124.45	3698.90	-52.72	3.57	-52.72	52.84	176.13	0.72
3800.00	1.34	120.46	3798.87	-54.09	5.71	-54.09	54.39	173.97	0.25
3900.00	1.29	113.04	3898.84	-55.13	7.76	-55.13	55.67	171.99	0.18
4000.00	1.45	116.03	3998.81	-56.12	9.93	-56.12	56.99	169.97	0.18
4100.00	1.69	120.59	4098.78	-57.43	12.34	-57.43	58.74	167.88	0.27
4200.00	2.25	123.78	4198.72	-59.27	15.24	-59.27	61.20	165.58	0.57
4300.00	2.72	128.73	4298.62	-61.85	18.72	-61.85	64.62	163.16	0.52
4400.00	3.50	130.43	4398.48	-65.31	22.89	-65.31	69.21	160.68	0.79
4500.00	4.10	131.16	4498.28	-69.64	27.91	-69.64	75.03	158.16	0.60
4600.00	3.88	132.92	4598.01	-74.30	33.08	-74.30	81.33	156.00	0.25
4700.00	3.44	135.73	4697.81	-78.75	37.65	-78.75	87.29	154.45	0.48
4800.00	2.79	137.93	4797.66	-82.71	41.37	-82.71	92.48	153.42	0.65
4900.00	2.01	138.24	4897.57	-85.82	44.17	-85.82	96.52	152.77	0.78
5000.00	2.09	142.92	4997.51	-88.59	46.44	-88.59	100.02	152.33	0.18
5100.00	1.78	147.21	5097.45	-91.35	48.38	-91.35	103.37	152.09	0.34
5200.00	1.52	150.34	5197.41	-93.81	49.88	-93.81	106.24	152.00	0.28
5300.00	1.42	158.63	5297.38	-96.11	50.99	-96.11	108.80	152.05	0.23
5400.00	1.27	164.96	5397.35	-98.34	51.73	-98.34	111.12	152.26	0.21
5500.00	0.97	168.87	5497.33	-100.25	52.18	-100.25	113.01	152.50	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	1.10	170.39	5597.31	-102.02	52.50	-102.02	114.74	152.77	0.13
5700.00	0.99	179.75	5697.30	-103.83	52.67	-103.83	116.43	153.10	0.20
5800.00	0.92	186.79	5797.28	-105.49	52.58	-105.49	117.87	153.51	0.14
5900.00	1.11	190.36	5897.27	-107.23	52.31	-107.23	119.31	154.00	0.20
6000.00	0.99	189.29	5997.25	-109.04	52.00	-109.04	120.80	154.51	0.12
6100.00	0.78	187.16	6097.24	-110.57	51.77	-110.57	122.09	154.91	0.22
6200.00	0.96	195.53	6197.23	-112.05	51.46	-112.05	123.30	155.33	0.22
6300.00	0.80	202.62	6297.22	-113.49	50.97	-113.49	124.41	155.81	0.20
6400.00	0.75	210.23	6397.21	-114.70	50.37	-114.70	125.27	156.29	0.11
6500.00	0.89	215.99	6497.20	-115.89	49.59	-115.89	126.06	156.84	0.17
6600.00	0.15	247.48	6597.19	-116.57	49.01	-116.57	126.46	157.20	0.77
6700.00	0.07	207.64	6697.19	-116.67	48.87	-116.67	126.49	157.27	0.11
6800.00	0.18	233.38	6797.19	-116.82	48.72	-116.82	126.57	157.36	0.12
6900.00	0.28	226.47	6897.19	-117.08	48.42	-117.08	126.69	157.53	0.10
7000.00	0.35	232.40	6997.19	-117.43	48.00	-117.43	126.86	157.77	0.08
7100.00	0.11	240.80	7097.19	-117.66	47.68	-117.66	126.95	157.94	0.25
7200.00	0.74	223.27	7197.18	-118.18	47.15	-118.18	127.24	158.25	0.64
7300.00	0.57	212.85	7297.18	-119.07	46.43	-119.07	127.80	158.70	0.21
7400.00	0.95	226.35	7397.17	-120.06	45.57	-120.06	128.42	159.22	0.42
7500.00	1.13	230.55	7497.15	-121.26	44.20	-121.26	129.06	159.97	0.20
7600.00	0.86	233.17	7597.14	-122.34	42.84	-122.34	129.62	160.70	0.27
7700.00	0.66	227.70	7697.13	-123.17	41.81	-123.17	130.08	161.25	0.22
7800.00	0.87	225.68	7797.12	-124.09	40.85	-124.09	130.64	161.78	0.21
7900.00	0.29	233.81	7897.11	-124.77	40.10	-124.77	131.06	162.19	0.58
8000.00	0.58	194.62	7997.11	-125.42	39.76	-125.42	131.57	162.41	0.40
8100.00	0.68	180.53	8097.10	-126.50	39.63	-126.50	132.57	162.61	0.19
8200.00	0.35	169.86	8197.10	-127.40	39.67	-127.40	133.44	162.70	0.34
8300.00	0.60	162.71	8297.10	-128.17	39.97	-128.17	134.26	162.88	0.28
8400.00	0.67	165.40	8397.09	-129.19	40.35	-129.19	135.35	162.65	0.16
8500.00	0.56	170.32	8497.09	-130.24	40.58	-130.24	136.42	162.69	0.11
8600.00	0.77	177.55	8597.08	-131.40	40.69	-131.40	137.55	162.79	0.22
8700.00	1.01	175.37	8697.07	-132.95	40.79	-132.95	139.06	162.94	0.25
8800.00	1.11	176.33	8797.05	-134.79	40.93	-134.79	140.87	163.11	0.10
8900.00	1.28	178.74	8897.03	-136.87	41.01	-136.87	142.89	163.32	0.18
9000.00	1.27	180.10	8997.00	-139.10	41.04	-139.10	145.02	163.56	0.03
9100.00	1.68	185.79	9096.97	-141.66	40.89	-141.66	147.44	163.90	0.43
9200.00	2.11	186.59	9196.91	-144.95	40.53	-144.95	150.50	164.38	0.43
9300.00	2.65	188.03	9296.83	-149.07	39.99	-149.07	154.34	164.98	0.54
9400.00	3.34	191.28	9396.69	-154.21	39.10	-154.21	159.09	165.77	0.71

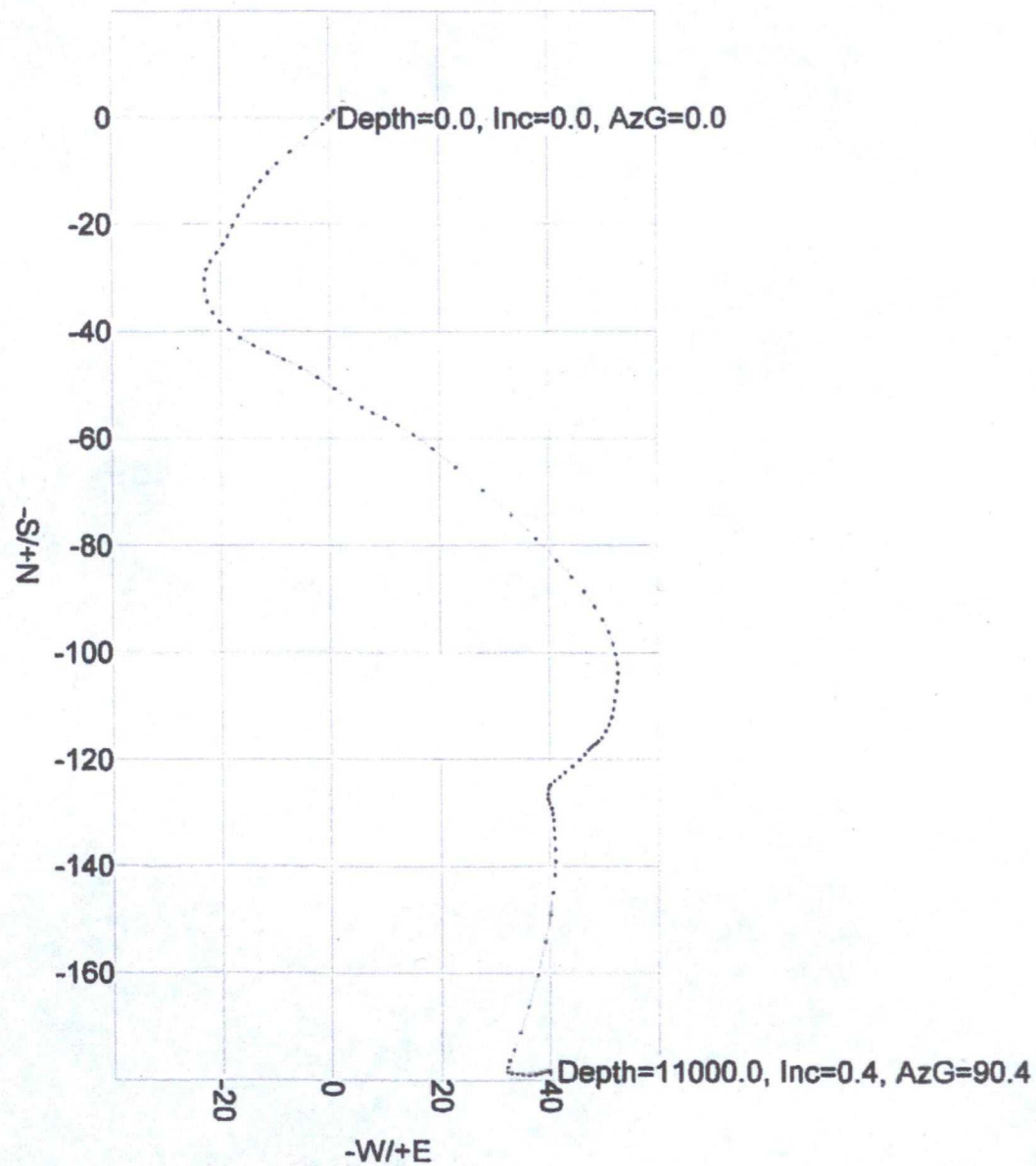
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9500.00	3.88	194.31	9496.49	-160.35	37.69	-160.35	164.72	166.77	0.58
9600.00	3.26	197.50	9596.30	-166.33	36.00	-166.33	170.19	167.79	0.66
9700.00	2.40	199.49	9696.18	-171.02	34.45	-171.02	174.45	168.81	0.86
9800.00	1.65	202.46	9796.11	-174.33	33.20	-174.33	177.46	169.22	0.76
9900.00	0.82	198.89	9896.09	-176.34	32.42	-176.34	179.29	169.58	0.84
10000.00	0.66	195.88	9996.08	-177.57	32.03	-177.57	180.43	169.78	0.17
10100.00	0.40	147.70	10096.08	-178.41	32.06	-178.41	181.27	169.81	0.49
10200.00	0.61	89.10	10196.07	-178.70	32.78	-178.70	181.68	169.61	0.53
10300.00	0.52	99.75	10296.07	-178.76	33.76	-178.76	181.92	169.31	0.14
10400.00	0.66	101.53	10396.06	-178.95	34.77	-178.95	182.30	169.01	0.14
10500.00	0.79	87.77	10496.05	-179.04	36.01	-179.04	182.63	168.63	0.22
10600.00	0.55	76.89	10596.05	-178.91	37.17	-178.91	182.73	168.26	0.26
10700.00	0.43	89.74	10696.04	-178.66	38.00	-178.66	182.66	167.99	0.13
10800.00	0.29	80.92	10796.04	-178.49	38.60	-178.49	182.62	167.80	0.16
10900.00	0.31	85.84	10896.04	-178.43	39.13	-178.43	182.67	167.63	0.03
11000.00	0.35	90.38	10996.04	-178.42	39.70	-178.42	182.78	167.45	0.05

XTOENERGY

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West Texas
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Surveyor: Eric Warner
Outrider Federal No 006H / API 30-025-42932

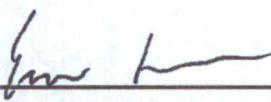


SURVEY
INTERNATIONAL



V.E.S. Survey Date: 12/29/2015

I Eric Warner certify that I am employed by VES Survey International. That I did on the day(s)
of 12/29/15 through 12/29/15 conduct or supervise the taking of a Rate Gyro survey from a
depth of 0.00 feet to a depth of 11,000.00 feet; that the data is true, correct, complete and
within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified
to make this report; that this survey was conducted at the request of XTO Energy for the
Outrider Federal Well # 6H API # 30-025-42932
in Lea County / Parish New Mexico; and that I have reviewed this report and
find that it conforms to the principles and procedures as set forth by Vaughn Energy Services


Eric Warner
Service Technician
Vaughn Energy Services

I Eric Warner certify that I am employed by VES Survey International. That I did on the day(s) of 12/29/15 through 12/29/15 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 11,000.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO Energy for the Outrider Federal Well # 6H API # 30-025-42932 in Lea County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services

Eric Warner

Eric Warner
Service Technician
Vaughn Energy Services