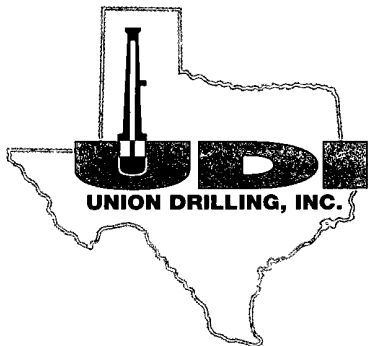




SUR: B-31-24s-33e, 175/N & 2200/E
 BHL: O-31-24s-33e, 358/S & 2227/E
 API # 30-025-40513

HOBBS OCD

OCT 29 2012

ELG 10-31-2012
 RECEIVED

Well Name & Number: Adder "BSE" State #1H

API Number: 30-025-40513

Location: 175 FNL & 2200 FEL, Lot B, Sec. 31, Township 24-S, Range 33-E, Lea County, New Mexico

Operator: Yates Petroleum Corporation

Drilling Contractor: Union Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling Contractor who drilled the above described well and that deviation survey tests were conducted and he obtained the following results:

RECORD OF INCLINATION

*11 Measured Depth (feet)	12 Course Length (Hundreds of feet)	*13 Angle of Inclination (Degrees)	14 Displacement per Hundred Feet (Sine of Angle X100)	15 Course Displacement (feet)	16 Accumulative Displacement (feet)
282	282	.96	1.68	4.72	4.72
1094	812	.96	1.68	13.61	18.33
1846	752	.54	0.94	7.09	25.42
2510	664	.4	0.70	4.64	30.05
3459	949	1.09	1.90	18.05	48.11
4218	759	.39	0.68	5.17	53.27
5206	988	1	1.75	17.24	70.52
6136	930	.61	1.06	9.90	80.42
6772	636	.5	0.87	5.55	85.97
7675	903	.5	0.87	7.88	93.85
8436	761	.5	0.87	6.64	100.49
9271	835	1.57	2.74	22.88	123.37
10207	936	4.3	7.50	70.23	193.60
10497	290	2.97	5.18	15.03	208.63
DIRECTIONAL					
TOOK OVER					

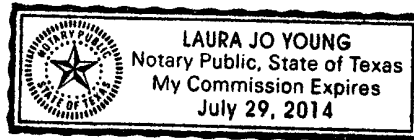
Drilling Contractor: Union Drilling, Inc.

By: Jim Mayfield
Jim Mayfield
Title: Division Manager

Subscribed and sworn to before me this 6TH Day of September, 2012.

Laura Jo Young
Notary Public
My Commission Expires: July 29, 2014

COUNTY OF TAYLOR)
STATE OF TEXAS)



HOBBS OCD

OCT 29 2012

CLG 10-31-2012
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Job Number: SVCO-121161
 Company: Yates Petroleum Corporation
 Lease/Well: ADDER BSE STATE 1H
 Location: Lea County, NM
 Rig Name: Union #223
 RKB: 25'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.09°
 Grid: East To Grid North
 File name: F:\SURVEY\2012SU~1\YATES\CONROE\ADDERB~1\1H.SVY
 Date/Time: 20-Aug-12 / 09:23
 Curve Name: Surface - 11150' M.D. (Rate Gyro)

SUR: B-31-24s-33e, 175/N & 2200/E
 BHL: O-31-24s-33e, 358/S & 2227/E
 API # 30-025-40513

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 11150' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Alan Hant 8/20/12
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.37	137.29	200.00	-.47	.44	-.47	.65	137.29	.18
400.00	.94	174.58	399.99	-2.58	1.03	-2.58	2.78	158.23	.34
600.00	.91	179.70	599.96	-5.80	1.19	-5.80	5.93	168.37	.04
800.00	.90	183.73	799.93	-8.96	1.10	-8.96	9.03	173.00	.03
1000.00	.94	189.09	999.91	-12.15	.74	-12.15	12.17	176.52	.05
1200.00	1.13	186.11	1199.88	-15.73	.27	-15.73	15.73	179.02	.10
1400.00	1.23	186.82	1399.83	-19.82	-.19	-19.82	19.82	180.56	.05
1600.00	.68	181.56	1599.81	-23.14	-.48	-23.14	23.14	181.19	.28
1800.00	.09	224.42	1799.80	-24.44	-.62	-24.44	24.44	181.46	.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2000.00	.13	348.78	1999.80	-24.33	-.78	-24.33	24.34	181.83	.10
2200.00	.24	314.47	2199.80	-23.81	-1.12	-23.81	23.84	182.70	.08
2400.00	.35	301.07	2399.80	-23.20	-1.94	-23.20	23.28	184.79	.06
2600.00	.30	308.29	2599.79	-22.56	-2.88	-22.56	22.74	187.27	.03
2800.00	.19	216.65	2799.79	-22.50	-3.49	-22.50	22.77	188.81	.18
3000.00	.49	181.74	2999.79	-23.62	-3.71	-23.62	23.91	188.93	.18
3200.00	.74	164.97	3199.78	-25.73	-3.40	-25.73	25.95	187.53	.15
3400.00	1.02	174.89	3399.75	-28.75	-2.91	-28.75	28.89	185.78	.16
3600.00	1.19	198.67	3599.72	-32.49	-3.41	-32.49	32.67	186.00	.24
3800.00	1.40	214.64	3799.67	-36.46	-5.47	-36.46	36.87	188.53	.21
4000.00	.70	233.35	3999.63	-39.20	-7.84	-39.20	39.98	191.30	.39
4200.00	.56	276.11	4199.62	-39.83	-9.79	-39.83	41.01	193.81	.24
4400.00	1.37	97.54	4399.61	-40.04	-8.39	-40.04	40.91	191.84	.96
4600.00	3.76	119.52	4599.40	-43.58	-.31	-43.58	43.59	180.41	1.27
4800.00	5.13	129.73	4798.79	-52.53	12.27	-52.53	53.95	166.85	.79
5000.00	3.81	132.26	4998.18	-62.72	24.07	-62.72	67.17	159.01	.67
5200.00	2.74	125.42	5197.85	-69.95	32.88	-69.95	77.30	154.83	.57
5400.00	2.54	124.57	5397.64	-75.24	40.42	-75.24	85.41	151.75	.10
5600.00	1.89	126.66	5597.49	-79.72	46.72	-79.72	92.40	149.63	.33
5800.00	1.66	124.58	5797.39	-83.34	51.75	-83.34	98.10	148.16	.12
6000.00	.75	137.11	5997.35	-85.94	55.03	-85.94	102.05	147.37	.47
6200.00	.42	130.30	6197.33	-87.37	56.48	-87.37	104.04	147.12	.17
6400.00	.30	115.33	6397.33	-88.07	57.51	-88.07	105.19	146.86	.08
6600.00	.31	112.40	6597.33	-88.50	58.48	-88.50	106.08	146.54	.01
6800.00	.37	80.68	6797.32	-88.60	59.62	-88.60	106.79	146.06	.10
7000.00	.37	105.28	6997.32	-88.67	60.88	-88.67	107.56	145.53	.08
7200.00	.32	160.71	7197.32	-89.37	61.69	-89.37	108.59	145.38	.16
7400.00	.45	228.40	7397.31	-90.41	61.28	-90.41	109.23	145.87	.22
7600.00	.46	226.79	7597.31	-91.49	60.11	-91.49	109.47	146.69	.01

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
7800.00	.53	200.40	7797.30	-92.90	59.20	-92.90	110.16	147.49	.12
8000.00	.42	144.25	7997.29	-94.36	59.31	-94.36	111.46	147.85	.23
8200.00	.61	130.09	8197.29	-95.65	60.55	-95.65	113.20	147.66	.11
8400.00	.93	143.82	8397.27	-97.64	62.33	-97.64	115.84	147.45	.18
8600.00	1.26	152.26	8597.23	-100.90	64.31	-100.90	119.65	147.49	.18
8800.00	1.29	155.65	8797.18	-104.89	66.26	-104.89	124.07	147.72	.04
9000.00	1.33	170.37	8997.13	-109.23	67.58	-109.23	128.45	148.26	.17
9200.00	1.27	195.75	9197.08	-113.66	67.36	-113.66	132.12	149.35	.29
9400.00	1.34	198.95	9397.03	-118.00	66.00	-118.00	135.20	150.78	.05
9600.00	1.09	206.48	9596.98	-121.91	64.39	-121.91	137.88	152.16	.15
9800.00	1.23	249.09	9796.95	-124.38	61.54	-124.38	138.78	153.68	.43
10000.00	3.39	241.97	9996.77	-127.93	54.31	-127.93	138.98	157.00	1.09
10200.00	4.58	249.02	10196.29	-133.57	41.64	-133.57	139.91	162.69	.64
10400.00	3.60	245.77	10395.77	-139.00	28.46	-139.00	141.89	168.43	.50
10600.00	3.20	237.39	10595.42	-144.59	18.03	-144.59	145.71	172.89	.32
10800.00	3.02	229.01	10795.13	-151.05	9.35	-151.05	151.34	176.46	.24
11000.00	2.73	212.96	10994.88	-158.50	2.78	-158.50	158.53	178.99	.43
Last Survey Depth Recorded									
11150.00	2.04	197.23	11144.75	-164.05	.05	-164.05	164.05	179.98	.63



HOBBS OCD

OCT 29 2012

EG 10-31-2012
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Yates Petroleum

Lea County, NM
Adder BSE State
#1

Original Hole

SUR: B-31-24s-33e, 175/N & 2200/E
BHL: O-31-24s-33e, 358/S & 2227/E
API # 30-025-40513

Design: Wellbore #1

Standard Survey Report

04 September, 2012



Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1
Project:	Lea County, NM	TVD Reference:	RKB @ 3572.00ft (Union 223)
Site:	Adder BSE State	MD Reference:	RKB @ 3572.00ft (Union 223)
Well:	#1	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Houston R5000 Database

Project:	Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Adder BSE State			
Site Position:		Northing:	430,316.15 ft	Latitude:	32.180946
From:	Map	Easting:	765,143.19 ft	Longitude:	-103.609941
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.39 °

Well	#1					
Well Position	+N-S	0.00 ft	Northing:	430,316.15 ft	Latitude:	32.180946
	+E-W	0.00 ft	Easting:	765,143.19 ft	Longitude:	-103.609941
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,547.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/19/2012	7.46	60.11	48,467

Design:	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0 00
Vertical Section:	Depth From (TVD)	+N-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	179 54	

Survey Program		Date	9/4/2012	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
200.00	9,400.00	MS Survey (Original Hole)	MWD	MWD - Standard
9,431.00	14,300.00	Crescent MWD (Original Hole)	MWD	MWD - Standard

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.37	137.29	200.00	-0.47	0.44	0.48	0.19	0.19	0.00
400.00	0.94	174.58	399.99	-2.58	1.03	2.59	0.34	0.29	18.65
600.00	0.91	179.70	599.96	-5.80	1.19	5.81	0.04	-0.02	2.56
800.00	0.90	183.73	799.93	-8.96	1.10	8.97	0.03	-0.01	2.02
1,000.00	0.94	189.09	999.91	-12.15	0.74	12.15	0.05	0.02	2.68
1,200.00	1.13	186.11	1,199.88	-15.73	0.27	15.73	0.10	0.10	-1.49
1,400.00	1.23	186.82	1,399.83	-19.82	-0.19	19.82	0.05	0.05	0.36
1,600.00	0.68	181.56	1,599.81	-23.14	-0.48	23.13	0.28	-0.28	-2.63
1,800.00	0.09	224.42	1,799.80	-24.44	-0.62	24.43	0.31	-0.30	21.43

Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1
Project:	Lea County, NM	TVD Reference:	RKB @ 3572.00ft (Union 223)
Site:	Add: BSE State	MD Reference:	RKB @ 3572.00ft (Union 223)
Well:	#1	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Houston R5000 Database

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,000.00	0.13	348.78	1,999.80	-24.33	-0.78	24.32	0.10	0.02	62.18
2,200.00	0.24	314.47	2,199.80	-23.81	-1.12	23.80	0.08	0.06	-17.16
2,400.00	0.35	301.07	2,399.80	-23.20	-1.94	23.18	0.06	0.06	-6.70
2,600.00	0.30	308.29	2,599.79	-22.56	-2.88	22.54	0.03	-0.03	3.61
2,800.00	0.19	216.65	2,799.79	-22.50	-3.49	22.47	0.18	-0.06	-45.82
3,000.00	0.49	181.74	2,999.79	-23.62	-3.71	23.59	0.18	0.15	-17.46
3,200.00	0.74	164.97	3,199.78	-25.73	-3.40	25.70	0.15	0.13	-8.39
3,400.00	1.02	174.89	3,399.75	-28.75	-2.91	28.72	0.16	0.14	4.96
3,600.00	1.19	198.67	3,599.72	-32.49	-3.41	32.46	0.24	0.09	11.89
3,800.00	1.40	214.64	3,799.67	-36.46	-5.47	36.42	0.21	0.11	7.99
4,000.00	0.70	233.35	3,999.63	-39.20	-7.84	39.14	0.39	-0.35	9.36
4,200.00	0.56	276.11	4,199.62	-39.83	-9.79	39.75	0.24	-0.07	21.38
4,400.00	1.37	97.54	4,399.61	-40.04	-8.39	39.97	0.96	0.41	-89.29
4,600.00	3.76	119.52	4,599.40	-43.58	-0.31	43.58	1.27	1.20	10.99
4,800.00	5.13	129.73	4,798.79	-52.53	12.27	52.63	0.79	0.69	5.11
5,000.00	3.81	132.26	4,998.18	-62.72	24.07	62.91	0.67	-0.66	1.27
5,200.00	2.74	125.42	5,197.85	-69.95	32.88	70.22	0.57	-0.54	-3.42
5,400.00	2.54	124.57	5,397.64	-75.24	40.42	75.56	0.10	-0.10	-0.43
5,600.00	1.89	126.66	5,597.49	-79.72	46.72	80.10	0.33	-0.33	1.05
5,800.00	1.66	124.58	5,797.39	-83.34	51.75	83.75	0.12	-0.12	-1.04
6,000.00	0.75	137.11	5,997.35	-85.94	55.03	86.38	0.47	-0.46	6.27
6,200.00	0.42	130.30	6,197.33	-87.37	56.48	87.82	0.17	-0.17	-3.41
6,400.00	0.30	115.33	6,397.33	-88.07	57.51	88.53	0.08	-0.06	-7.49
6,600.00	0.31	112.40	6,597.33	-88.50	58.48	88.97	0.01	0.01	-1.47
6,800.00	0.37	80.68	6,797.32	-88.60	59.62	89.08	0.10	0.03	-15.86
7,000.00	0.37	105.28	6,997.32	-88.67	60.88	89.15	0.08	0.00	12.30
7,200.00	0.32	160.71	7,197.32	-89.37	61.69	89.86	0.16	-0.03	27.72
7,400.00	0.45	228.40	7,397.31	-90.41	61.28	90.90	0.22	0.07	33.85
7,600.00	0.46	226.79	7,597.31	-91.49	60.11	91.97	0.01	0.01	-0.81
7,800.00	0.53	200.40	7,797.30	-92.90	59.20	93.38	0.12	0.04	-13.20
8,000.00	0.42	144.25	7,997.29	-94.36	59.31	94.84	0.23	-0.06	-28.08
8,200.00	0.61	130.09	8,197.29	-95.65	60.55	96.13	0.11	0.10	-7.08
8,400.00	0.93	143.82	8,397.27	-97.64	62.33	98.14	0.18	0.16	6.87
8,600.00	1.26	152.26	8,597.23	-100.90	64.31	101.41	0.18	0.17	4.22
8,800.00	1.29	155.65	8,797.18	-104.89	66.26	105.42	0.04	0.02	1.70
9,000.00	1.33	170.37	8,997.13	-109.23	67.58	109.77	0.17	0.02	7.36
9,200.00	1.27	195.75	9,197.08	-113.66	67.36	114.19	0.29	-0.03	12.69
9,400.00	1.34	198.95	9,397.03	-118.00	66.00	118.53	0.05	0.04	1.60
Tie in to MS Survey									
9,431.00	7.20	198.60	9,427.93	-120.19	65.26	120.71	18.90	18.90	-1.13
9,463.00	11.80	187.70	9,459.48	-125.33	64.18	125.84	15.37	14.38	-34.06
9,494.00	16.20	185.20	9,489.56	-132.78	63.37	133.29	14.32	14.19	-8.06
9,526.00	20.20	186.80	9,519.95	-142.72	62.31	143.22	12.60	12.50	5.00

Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1
Project:	Lea County, NM	TVD Reference:	RKB @ 3572.00ft (Union 223)
Site:	Adder BSE State	MD Reference:	RKB @ 3572.00ft (Union 223)
Well:	#1	North Reference:	Grd
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Houston R5000 Database

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,557.00	24.50	183.40	9,548.62	-154.46	61.29	154.94	14.48	13.87	-10.97
9,589.00	26.90	181.50	9,577.45	-168.32	60.71	168.80	7.93	7.50	-5.94
9,621.00	29.70	180.30	9,605.62	-183.49	60.48	183.96	8.93	8.75	-3.75
9,653.00	32.70	179.60	9,632.99	-200.06	60.50	200.54	9.44	9.38	-2.19
9,684.00	33.80	181.30	9,658.91	-217.05	60.36	217.53	4.65	3.55	5.48
9,716.00	34.50	186.10	9,685.40	-234.97	59.20	235.44	8.70	2.19	15.00
9,747.00	38.70	185.60	9,710.28	-253.35	57.32	253.80	13.58	13.55	-1.61
9,779.00	43.10	183.40	9,734.47	-274.23	55.69	274.67	14.47	13.75	-6.88
9,811.00	47.70	181.90	9,756.93	-296.99	54.65	297.41	14.76	14.38	-4.69
9,842.00	52.10	181.70	9,776.89	-320.68	53.91	321.10	14.20	14.19	-0.65
9,874.00	55.20	181.50	9,795.86	-346.44	53.19	346.86	9.70	9.69	-0.63
9,906.00	57.70	180.60	9,813.54	-373.10	52.70	373.51	8.16	7.81	-2.81
9,937.00	61.80	179.40	9,829.16	-399.87	52.71	400.28	13.64	13.23	-3.87
9,969.00	67.20	178.50	9,842.93	-428.74	53.24	429.15	17.06	16.88	-2.81
10,001.00	70.40	179.20	9,854.50	-458.57	53.84	458.98	10.21	10.00	2.19
10,032.00	72.30	178.70	9,864.41	-487.93	54.38	488.35	6.32	6.13	-1.61
10,064.00	75.10	177.80	9,873.39	-518.63	55.32	519.05	9.16	8.75	-2.81
10,096.00	77.60	177.30	9,880.94	-549.69	56.65	550.13	7.96	7.81	-1.56
10,127.00	79.70	177.50	9,887.04	-580.05	58.03	580.50	6.80	6.77	0.65
10,159.00	81.80	177.50	9,892.19	-611.61	59.40	612.06	6.56	6.56	0.00
10,191.00	85.30	176.80	9,895.78	-643.36	60.98	643.83	11.15	10.94	-2.19
10,222.00	89.00	177.50	9,897.32	-674.28	62.52	674.76	12.15	11.94	2.26
10,286.00	90.40	178.00	9,897.66	-738.22	65.04	738.72	2.32	2.19	0.78
10,381.00	91.10	178.50	9,896.41	-833.17	67.94	833.69	0.91	0.74	0.53
10,476.00	89.60	179.40	9,895.83	-928.15	69.68	928.68	1.84	-1.58	0.95
10,571.00	90.10	179.80	9,896.08	-1,023.15	70.34	1,023.68	0.67	0.53	0.42
10,666.00	90.60	180.50	9,895.50	-1,118.14	70.09	1,118.67	0.91	0.53	0.74
10,761.00	89.00	181.20	9,895.83	-1,213.13	68.68	1,213.64	1.84	-1.68	0.74
10,856.00	89.40	181.70	9,897.16	-1,308.09	66.28	1,308.58	0.67	0.42	0.53
10,951.00	89.60	182.20	9,897.99	-1,403.03	63.05	1,403.49	0.57	0.21	0.53
11,046.00	90.30	182.70	9,898.07	-1,497.94	58.99	1,498.37	0.91	0.74	0.53
11,141.00	90.60	182.90	9,897.32	-1,592.82	54.34	1,593.21	0.38	0.32	0.21
11,236.00	91.70	183.60	9,895.42	-1,687.65	48.96	1,687.99	1.37	1.16	0.74
11,355.00	93.40	184.20	9,890.12	-1,806.25	40.88	1,806.52	1.51	1.43	0.50
11,450.00	91.10	182.70	9,886.39	-1,901.00	35.16	1,901.22	2.89	-2.42	-1.58
11,545.00	92.40	182.90	9,883.49	-1,995.84	30.53	1,996.02	1.38	1.37	0.21
11,640.00	90.10	181.30	9,881.42	-2,090.74	27.05	2,090.89	2.95	-2.42	-1.68
11,736.00	90.60	181.20	9,880.83	-2,186.72	24.95	2,186.85	0.53	0.52	-0.10
11,831.00	87.40	179.40	9,882.49	-2,281.69	24.45	2,281.81	3.86	-3.37	-1.89
11,926.00	88.20	179.10	9,886.14	-2,376.61	25.70	2,376.74	0.90	0.84	-0.32
12,021.00	89.60	179.20	9,887.96	-2,471.58	27.11	2,471.71	1.48	1.47	0.11
12,116.00	88.20	176.90	9,889.79	-2,566.50	30.34	2,566.66	2.83	-1.47	-2.42
12,211.00	89.60	177.30	9,891.61	-2,661.35	35.14	2,661.55	1.53	1.47	0.42

Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1
Project:	Lea County, NM	TVD Reference:	RKB @ 3572.00ft (Union 223)
Site:	Adder BSE State	MD Reference:	RKB @ 3572.00ft (Union 223)
Well:	#1	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Houston R5000 Database

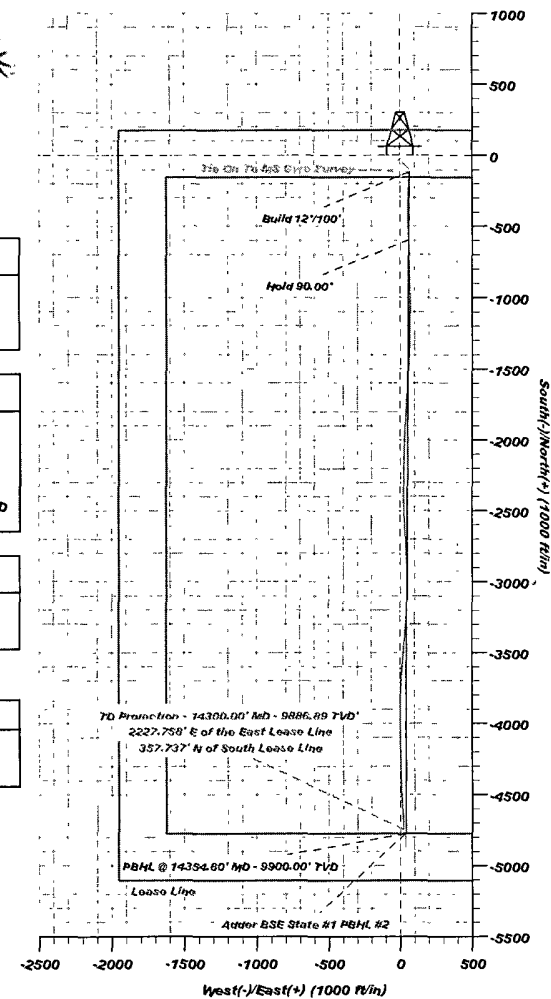
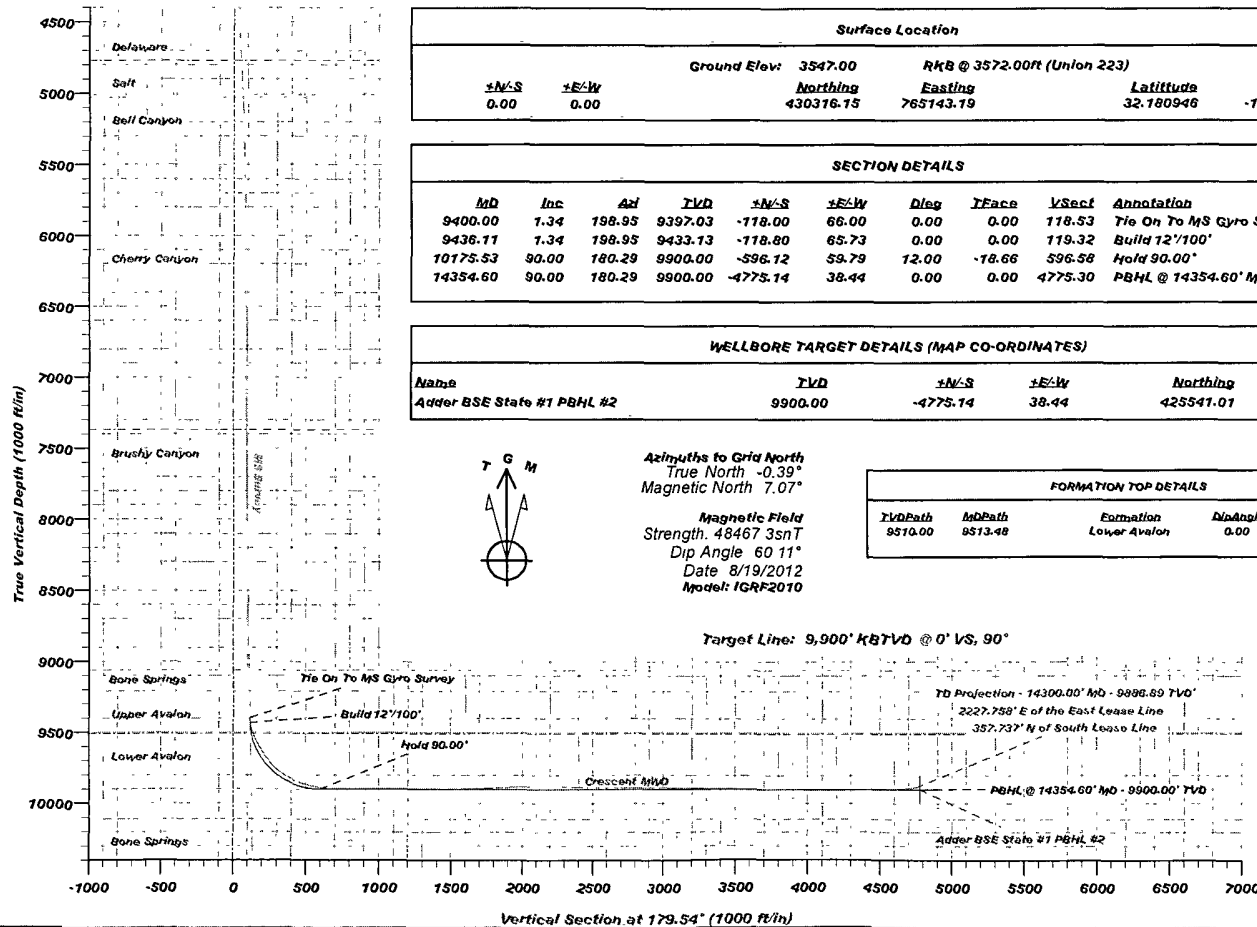
Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,306.00	91.10	177.60	9,891.03	-2,756.26	39.37	2,756.48	1.61	1.58	0.32
12,401.00	90.80	178.00	9,889.46	-2,851.17	43.02	2,851.43	0.53	-0.32	0.42
12,496.00	89.70	178.30	9,889.04	-2,946.12	46.08	2,946.39	1.20	-1.16	0.32
12,591.00	88.70	180.10	9,890.37	-3,041.10	47.41	3,041.38	2.17	-1.05	1.89
12,686.00	89.40	181.50	9,891.94	-3,136.07	46.08	3,136.34	1.65	0.74	1.47
12,781.00	89.40	182.90	9,892.94	-3,230.99	42.44	3,231.23	1.47	0.00	1.47
12,876.00	90.30	184.00	9,893.19	-3,325.82	36.72	3,326.01	1.50	0.95	1.16
12,971.00	88.20	184.30	9,894.43	-3,420.56	29.85	3,420.69	2.23	-2.21	0.32
13,066.00	88.90	185.20	9,896.83	-3,515.20	21.98	3,515.26	1.20	0.74	0.95
13,167.00	89.20	184.30	9,898.51	-3,615.84	13.62	3,615.83	0.94	0.30	-0.89
13,262.00	89.90	184.30	9,899.25	-3,710.56	6.50	3,710.50	0.74	0.74	0.00
13,357.00	88.70	182.00	9,900.41	-3,805.41	1.28	3,805.29	2.73	-1.26	-2.42
13,452.00	87.80	179.40	9,903.32	-3,900.35	0.12	3,900.22	2.89	-0.95	-2.74
13,547.00	88.90	179.40	9,906.05	-3,995.30	1.11	3,995.18	1.16	1.16	0.00
13,642.00	89.60	179.40	9,907.30	-4,090.29	2.10	4,090.17	0.74	0.74	0.00
13,736.00	89.90	179.20	9,907.71	-4,184.28	3.25	4,184.17	0.38	0.32	-0.21
13,832.00	92.00	178.90	9,906.11	-4,280.25	4.84	4,280.15	2.21	2.19	-0.31
13,927.00	92.60	178.90	9,902.30	-4,375.15	6.67	4,375.06	0.63	0.63	0.00
14,021.00	91.10	177.10	9,899.27	-4,469.04	9.95	4,468.97	2.49	-1.60	-1.91
14,116.00	91.30	176.90	9,897.28	-4,563.89	14.92	4,563.86	0.30	0.21	-0.21
14,211.00	93.10	177.80	9,893.63	-4,658.71	19.31	4,658.72	2.12	1.89	0.95
14,251.00	94.70	177.80	9,890.91	-4,698.59	20.84	4,698.60	4.00	4.00	0.00
14,300.00	94.70	177.80	9,886.89	-4,747.39	22.71	4,747.42	0.00	0.00	0.00
TD Projection - 14300.00' MD - 9886.89' TVD - 357.737' N of South Lease Line - 2227.758' E of the East Lease Line - Adder BSE State #1 PI									

Design/Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,400.00	9,397.03	-118.00	66.00	Tie in to MS Survey
14,300.00	9,886.89	-4,747.39	22.71	TD Projection - 14300.00' MD - 9886.89' TVD
14,300.00	9,886.89	-4,747.39	22.71	357.737' N of South Lease Line
14,300.00	9,886.89	-4,747.39	22.71	2227.758' E of the East Lease Line

Checked By: _____ Approved By: _____ Date: _____



Yates Petroleum
Lea County, NM
Adder BSE State
#1
Plan #4
Final Planned vs Actual



Plan: Plan #4 (#1/Original Hole)
Created By: Mark Adair 9/4/2012