

Quantum Survey Report

Company: Pride Energy	Date: 5/5/2004	Time: 09:48:29	Page: 1
Field: Lea County, New Mexico	Co-ordinate(NE) Reference:	Site: Site #1, True North	
Site: Site #1	Vertical (TVD) Reference:	SITE 0.0	
Well: South 4 Lakes Unit #13	Section (VS) Reference:	Well (0.00N,0.00E,84.24Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Field: Lea County, New Mexico

Map System:
Geo Datum:
Sys Datum: Mean Sea Level

Map Zone:
Coordinate System:
Geomagnetic Model: Site Centre
igr2000

Site: Site #1

Site Position:	From: Lease Line	Northing:	ft	Latitude:	
Position Uncertainty:	0.00 ft	Easting:	ft	Longitude:	
Ground Level:	0.00 ft	North Reference:		True	deg
		Grid Convergence:		0.00	deg

Well: South 4 Lakes Unit #13	Slot Name:
Well Position: +N/-S 0.00 ft Northing: 0.00 ft Latitude:	
+E/-W 0.00 ft Easting: 0.00 ft Longitude:	
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 4/19/2004	Above System Datum: Mean Sea Level
Field Strength: 50160 nT	Declination: 8.61 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 61.44 deg
ft	+N/-S ft
	+E/-W ft
10000.00	0.00
	0.00
	84.24

Survey: Survey #1	Start Date: 4/26/2004
Company: Quantum	Engineer: Jeff Shoop
Tool:	Tied-to: User Defined

Survey: Survey #1

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/30m	Build deg/30m	Turn deg/30m	Tool/Comment
8800.00	1.85	327.19	8798.71	35.99	4.41	8.00	0.000	0.000	0.000	
8905.00	2.50	93.10	8903.67	37.29	5.78	9.49	3.642	0.609	118.026	
8996.00	3.50	94.00	8994.55	36.99	10.53	14.19	1.083	1.082	0.973	
9122.00	7.60	105.40	9119.93	34.51	22.41	25.75	3.301	3.203	8.905	
9217.00	7.40	107.80	9214.12	30.97	34.29	37.22	0.385	-0.207	2.487	
9312.00	7.20	92.40	9308.36	28.85	46.06	48.72	2.032	-0.207	-15.955	
9406.00	6.60	93.80	9401.68	28.25	57.34	59.88	0.652	-0.628	1.466	
9501.00	6.20	93.90	9496.09	27.53	67.90	70.32	0.415	-0.414	0.104	
9596.00	6.00	94.70	9590.55	26.78	77.97	80.26	0.225	-0.207	0.829	
9691.00	5.60	92.50	9685.06	26.17	87.55	89.73	0.474	-0.414	-2.279	
9786.00	4.90	93.50	9779.66	25.72	96.23	98.32	0.731	-0.725	1.036	
9881.00	4.20	91.70	9874.36	25.37	103.76	105.78	0.740	-0.725	-1.865	
9975.00	4.00	104.90	9968.12	24.42	110.37	112.26	1.008	-0.209	13.821	
10071.00	3.60	101.60	10063.91	22.96	116.55	118.27	0.467	-0.410	-3.383	
10172.00	3.40	94.30	10164.73	22.09	122.65	124.24	0.476	-0.195	-7.114	
10267.00	4.20	90.30	10259.52	21.87	128.94	130.48	0.873	0.829	-4.144	
10359.00	5.20	89.70	10351.21	21.87	136.47	137.98	1.071	1.070	-0.642	
10451.00	5.80	98.90	10442.78	21.17	145.24	146.63	1.139	0.642	9.843	
10545.00	6.60	111.40	10536.24	18.47	154.96	156.03	1.638	0.838	13.088	
10637.00	6.40	111.70	10627.65	14.64	164.64	165.28	0.217	-0.214	0.321	
10729.00	6.30	114.30	10719.08	10.67	174.01	174.20	0.326	-0.107	2.782	
70792.00	6.30	114.30	70419.36	-2701.61	6181.04	5878.97	0.000	0.000	0.000	

SUR: L-01-12s-34e, 1830/S & 735/W
 BHL: L-01-12s-34e, 1838/S & 915/W
 API # 30-015-36528

Quantum Survey Report

Company: Pride Energy	Date: 5/10/2004	Time: 15:12:08	Page: 1
Field: Lea County, New Mexico	Co-ordinate(NE) Reference:	Site: Site #1, True North	
Site: Site #1	Vertical (TVD) Reference:	SITE 0.0	
Well: South 4 Lakes Unit #13	Section (VS) Reference:	Well (0.00N,0.00E,84.24Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature Db: Sybase	

Field: Lea County, New Mexico

Map System:

Geo Datum:

Sys Datum: Mean Sea Level

Map Zone:

Coordinate System:

Geomagnetic Model:

Site Centre

igrf2000

Site: Site #1

Site Position:

From: Lease Line

Position Uncertainty: 0.00 ft

Ground Level: 0.00 ft

Northing:

Easting:

ft

ft

Latitude:

Longitude:

North Reference:

Grid Convergence:

True

0.00 deg

Well: South 4 Lakes Unit #13

Slot Name:

Well Position: +N/-S 0.00 ft

+E/-W 0.00 ft

Position Uncertainty: 0.00 ft

Northing:

Easting:

0.00 ft

0.00 ft

Latitude:

Longitude:

Wellpath: 1

Current Datum: SITE

Magnetic Data: 4/19/2004

Field Strength: 50160 nT

Vertical Section: Depth From (TVD)

ft

Height

0.00 ft

+N/-S

ft

Drilled From:

Tie-on Depth:

Above System Datum:

Declination:

Mag Dip Angle:

+E/-W

ft

Surface

0.00 ft

Mean Sea Level

8.61 deg

61.44 deg

Direction

deg

10000.00

0.00

0.00

84.24

Survey: Survey #1

Start Date:

4/26/2004

Company: Quantum

Tool:

Engineer:

Tied-to:

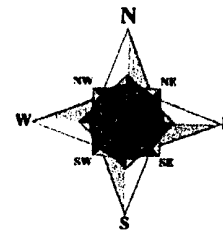
Jeff Shoop

User Defined

Survey: Survey #1

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/30m	Build deg/30m	Turn deg/30m	Tool/Comment
8800.00	1.85	327.19	8798.71	35.99	4.41	8.00	0.000	0.000	0.000	
8905.00	2.50	93.10	8903.67	37.29	5.78	9.49	3.642	0.609	118.026	
8996.00	3.50	94.00	8994.55	36.99	10.53	14.19	1.083	1.082	0.973	
9122.00	7.60	105.40	9119.93	34.51	22.41	25.75	3.301	3.203	8.905	
9217.00	7.40	107.80	9214.12	30.97	34.29	37.22	0.385	-0.207	2.487	
9312.00	7.20	92.40	9308.36	28.85	46.06	48.72	2.032	-0.207	-15.955	
9406.00	6.60	93.80	9401.68	28.25	57.34	59.88	0.652	-0.628	1.466	
9501.00	6.20	93.90	9496.09	27.53	67.90	70.32	0.415	-0.414	0.104	
9596.00	6.00	94.70	9590.55	26.78	77.97	80.26	0.225	-0.207	0.829	
9691.00	5.60	92.50	9685.06	26.17	87.55	89.73	0.474	-0.414	-2.279	
9786.00	4.90	93.50	9779.66	25.72	96.23	98.32	0.731	-0.725	1.036	
9881.00	4.20	91.70	9874.36	25.37	103.76	105.78	0.740	-0.725	-1.865	
9975.00	4.00	104.90	9968.12	24.42	110.37	112.26	1.008	-0.209	13.821	
10071.00	3.60	101.60	10063.91	22.96	116.55	118.27	0.467	-0.410	-3.383	
10172.00	3.40	94.30	10164.73	22.09	122.65	124.24	0.476	-0.195	-7.114	
10267.00	4.20	90.30	10259.52	21.87	128.94	130.48	0.873	0.829	-4.144	
10359.00	5.20	89.70	10351.21	21.87	136.47	137.98	1.071	1.070	-0.642	
10451.00	5.80	98.90	10442.78	21.17	145.24	146.63	1.139	0.642	9.843	
10545.00	6.60	111.40	10536.24	18.47	154.96	156.03	1.638	0.838	13.088	
10637.00	6.40	111.70	10627.65	14.64	164.64	165.28	0.217	-0.214	0.321	
10729.00	6.30	114.30	10719.08	10.67	174.01	174.20	0.326	-0.107	2.782	
10792.00	6.30	114.30	10781.70	7.82	180.31	180.19	0.000	0.000	0.000	

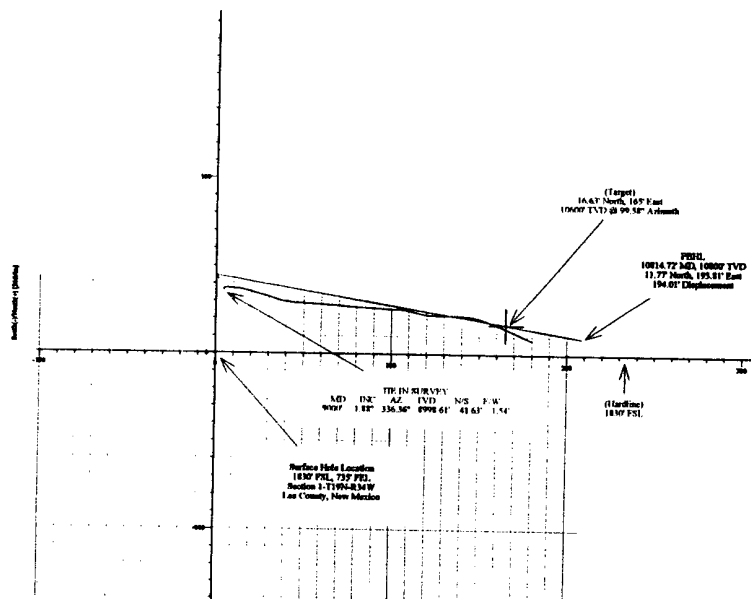
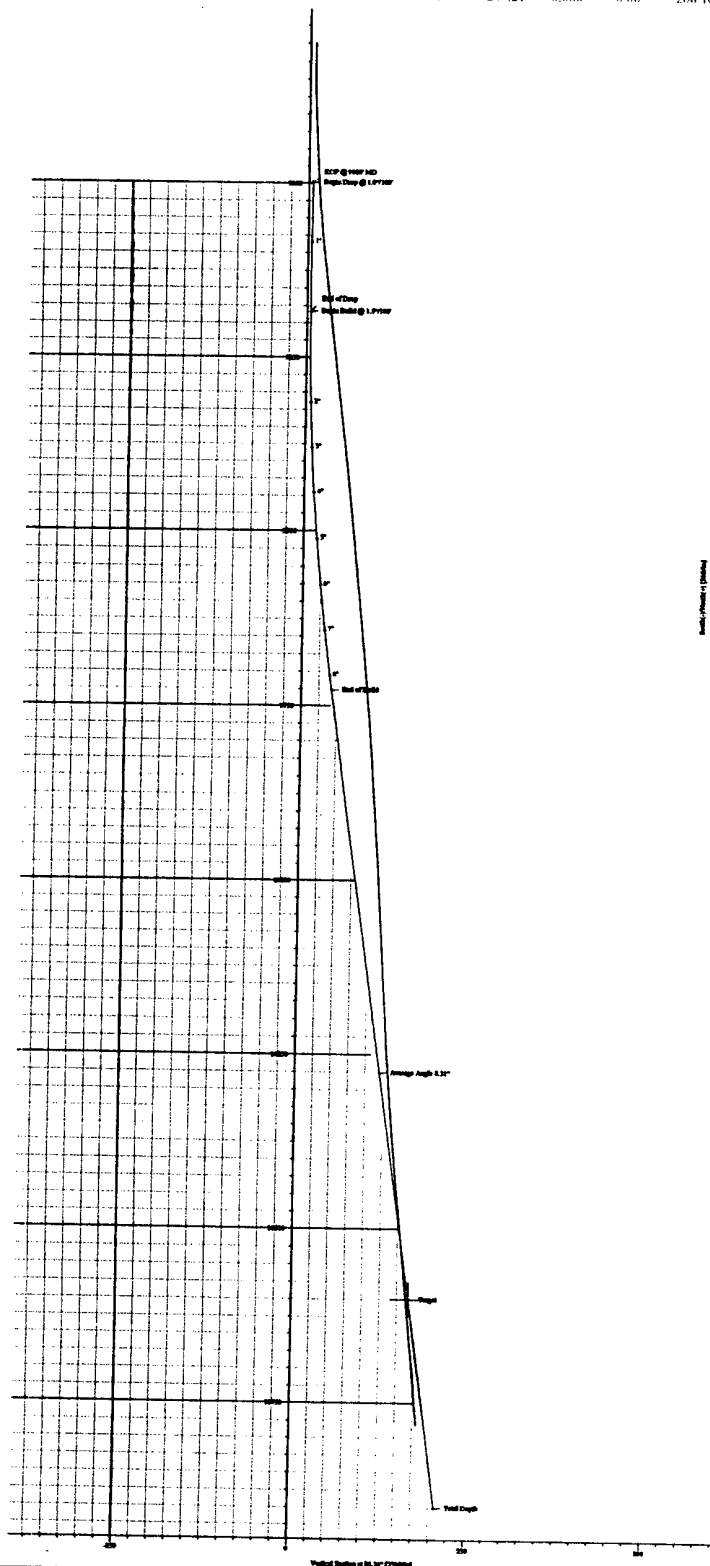
Pride Energy
South 4 Lakes Unit3 (Sidetrack #1)
Section 1-T19N-R34E
Lea County, New Mexico



Declination 2.61°
 Dip Angle 41.64°
 Field Strength 70100 uT

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	9000.00	1.88	336.36	8998.61	41.63	1.54	0.000	0.00	5.71	
2	9185.04	0.00	99.58	9183.62	44.41	0.32	1.000	180.00	4.77	
3	9730.38	8.31	99.58	9727.05	37.84	39.26	1.500	0.00	42.85	
4	10612.60	8.31	99.58	10600.00	16.63	165.00	0.000	0.00	165.84	Target
5	10915.78	8.31	99.58	10900.00	9.34	208.21	0.000	0.00	208.10	



Well Pathing Details

Name	TVD	+N/-S	+E/-W	Shape
Target	10600.00	16.63	165.84	Point



Plan: Plan #1 (South 4 Lakes Unit #13/1)

Created By: Jeff Shoop Date: 5/10/2004

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____