



Scientific Drilling
Directional Drilling Operations

Field: Sec. 22, T17S-R31E (Skelly Unit #942)
Site: Eddy County, NM
Well: Skelly Unit #942
Wellpath: OH
Plan: Plan #1

Mack Energy, Corp.

30-015-34645

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	
3	2169.58	5.39	332.40	2169.19	11.23	-5.87	2.00	0.00	12.67	
4	4541.71	5.39	332.40	4530.81	208.77	-109.13	0.00	0.00	235.57	
5	4811.29	0.00	0.00	4800.00	220.00	-115.00	2.00	180.00	248.24	
6	5511.29	0.00	0.00	5500.00	220.00	-115.00	0.00	0.00	248.24	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Skelly Unit #942	0.00	0.00	663786.900	646784.200	32°49'26.131N	103°51'19.829W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	5500.00	220.00	-115.00	664006.900	646669.200	Point

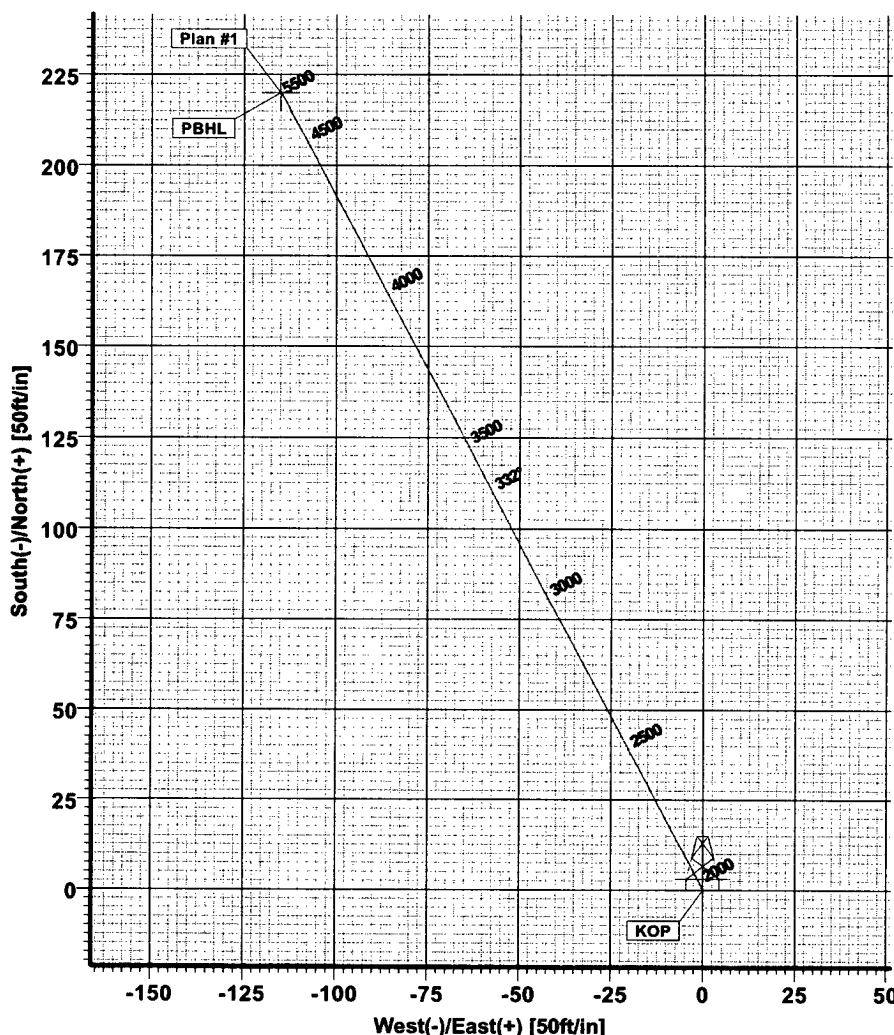
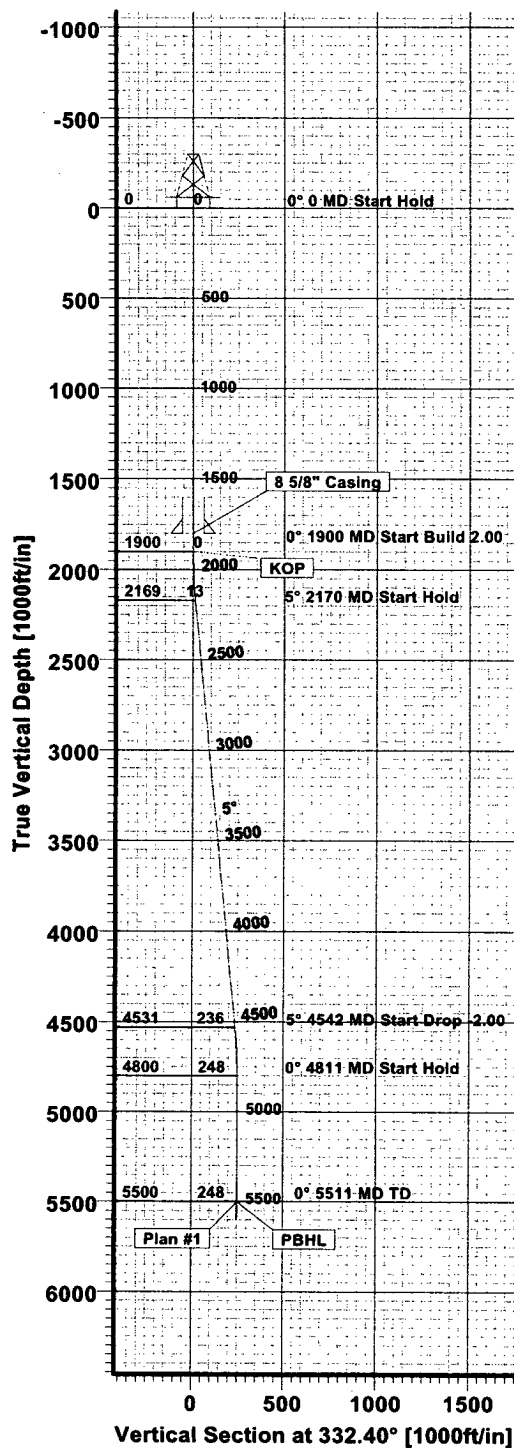
FIELD DETAILS

Sec. 22, T17S-R31E (Skelly Unit #942)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: Igrf2005
System Datum: Mean Sea Level
Local North: Grid North



Azimuths to Grid North
True North: -0.26°
Magnetic North: 8.14°

Magnetic Field
Strength: 49533nT
Dip Angle: 60.83°
Date: 2006-01-13
Model: Igrf2005





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Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: iqrf2005

[illegible]



Scientific Drilling Planning Report

Company: Mack Energy Corp.
Field: Sec. 22, T17S-R31E (Skelly Unit #942)
Site: Eddy County, NM
Well: Skelly Unit #942
Wellpath: OH

Date: 2006-01-16 Time: 13:50:14 Page: 2
Co-ordinate(NE) Reference: Well: Skelly Unit #942, Grid North
Vertical (TVD) Reference: KB=3873 3873.0
Section (VS) Reference: Well (0.00N,0.00E,332.40Azi)
Plan: Plan #1

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Section 2 : Start Build 2.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2000.00	2.00	332.40	1999.98	1.55	-0.81	1.75	2.00	2.00	0.00	0.00
2100.00	4.00	332.40	2099.84	6.18	-3.23	6.98	2.00	2.00	0.00	0.00
2169.58	5.39	332.40	2169.19	11.23	-5.87	12.67	2.00	2.00	0.00	0.00

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2200.00	5.39	332.40	2199.47	13.77	-7.20	15.53	0.00	0.00	0.00	0.00
2300.00	5.39	332.40	2299.03	22.09	-11.55	24.93	0.00	0.00	0.00	0.00
2400.00	5.39	332.40	2398.58	30.42	-15.90	34.33	0.00	0.00	0.00	0.00
2500.00	5.39	332.40	2498.14	38.75	-20.25	43.72	0.00	0.00	0.00	0.00
2600.00	5.39	332.40	2597.70	47.07	-24.61	53.12	0.00	0.00	0.00	0.00
2700.00	5.39	332.40	2697.26	55.40	-28.96	62.51	0.00	0.00	0.00	0.00
2800.00	5.39	332.40	2796.81	63.73	-33.31	71.91	0.00	0.00	0.00	0.00
2900.00	5.39	332.40	2896.37	72.06	-37.67	81.31	0.00	0.00	0.00	0.00
3000.00	5.39	332.40	2995.93	80.38	-42.02	90.70	0.00	0.00	0.00	0.00
3100.00	5.39	332.40	3095.49	88.71	-46.37	100.10	0.00	0.00	0.00	0.00
3200.00	5.39	332.40	3195.04	97.04	-50.72	109.50	0.00	0.00	0.00	0.00
3300.00	5.39	332.40	3294.60	105.37	-55.08	118.89	0.00	0.00	0.00	0.00
3400.00	5.39	332.40	3394.16	113.69	-59.43	128.29	0.00	0.00	0.00	0.00
3500.00	5.39	332.40	3493.72	122.02	-63.78	137.69	0.00	0.00	0.00	0.00
3600.00	5.39	332.40	3593.27	130.35	-68.14	147.08	0.00	0.00	0.00	0.00
3700.00	5.39	332.40	3692.83	138.68	-72.49	156.48	0.00	0.00	0.00	0.00
3800.00	5.39	332.40	3792.39	147.00	-76.84	165.88	0.00	0.00	0.00	0.00
3900.00	5.39	332.40	3891.95	155.33	-81.20	175.27	0.00	0.00	0.00	0.00
4000.00	5.39	332.40	3991.50	163.66	-85.55	184.67	0.00	0.00	0.00	0.00
4100.00	5.39	332.40	4091.06	171.98	-89.90	194.06	0.00	0.00	0.00	0.00
4200.00	5.39	332.40	4190.62	180.31	-94.25	203.46	0.00	0.00	0.00	0.00
4300.00	5.39	332.40	4290.18	188.64	-98.61	212.86	0.00	0.00	0.00	0.00
4400.00	5.39	332.40	4389.73	196.97	-102.96	222.25	0.00	0.00	0.00	0.00
4500.00	5.39	332.40	4489.29	205.29	-107.31	231.65	0.00	0.00	0.00	0.00
4541.71	5.39	332.40	4530.81	208.77	-109.13	235.57	0.00	0.00	0.00	0.00

Section 4 : Start Drop -2.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
4600.00	4.23	332.40	4588.90	213.10	-111.39	240.46	2.00	-2.00	0.00	180.00
4700.00	2.23	332.40	4688.74	218.08	-114.00	246.08	2.00	-2.00	0.00	180.00
4800.00	0.23	332.40	4788.71	219.98	-114.99	248.22	2.00	-2.00	0.00	180.00
4811.29	0.00	0.00	4800.00	220.00	-115.00	248.24	2.00	-2.00	0.00	180.00

Section 5 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
4900.00	0.00	0.00	4888.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5000.00	0.00	0.00	4988.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5100.00	0.00	0.00	5088.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5200.00	0.00	0.00	5188.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5300.00	0.00	0.00	5288.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5400.00	0.00	0.00	5388.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5500.00	0.00	0.00	5488.71	220.00	-115.00	248.24	0.00	0.00	0.00	0.00
5511.29	0.00	0.00	5500.00	220.00	-115.00	248.24	0.00	0.00	0.00	0.00



Scientific Drilling Planning Report

Company: Mack Energy Corp.
Field: Sec. 22, T17S-R31E (Skelly Unit #942)
Site: Eddy County, NM
Well: Skelly Unit #942
Wellpath: OH

Date: 2006-01-16
Co-ordinate(NE) Reference: Well: Skelly Unit #942, Grid North
Vertical (TVD) Reference: KB=3873 3873.0
Section (VS) Reference: Well (0.00N,0.00E,332.40Azi)
Plan: Plan #1

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Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	8 5/8" Casing
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP
2000.00	2.00	332.40	1999.98	1.55	-0.81	1.75	2.00	2.00	0.00	
2100.00	4.00	332.40	2099.84	6.18	-3.23	6.98	2.00	2.00	0.00	
2169.58	5.39	332.40	2169.19	11.23	-5.87	12.67	2.00	2.00	0.00	
2200.00	5.39	332.40	2199.47	13.77	-7.20	15.53	0.00	0.00	0.00	
2300.00	5.39	332.40	2299.03	22.09	-11.55	24.93	0.00	0.00	0.00	
2400.00	5.39	332.40	2398.58	30.42	-15.90	34.33	0.00	0.00	0.00	
2500.00	5.39	332.40	2498.14	38.75	-20.25	43.72	0.00	0.00	0.00	
2600.00	5.39	332.40	2597.70	47.07	-24.61	53.12	0.00	0.00	0.00	
2700.00	5.39	332.40	2697.26	55.40	-28.96	62.51	0.00	0.00	0.00	
2800.00	5.39	332.40	2796.81	63.73	-33.31	71.91	0.00	0.00	0.00	
2900.00	5.39	332.40	2896.37	72.06	-37.67	81.31	0.00	0.00	0.00	
3000.00	5.39	332.40	2995.93	80.38	-42.02	90.70	0.00	0.00	0.00	
3100.00	5.39	332.40	3095.49	88.71	-46.37	100.10	0.00	0.00	0.00	
3200.00	5.39	332.40	3195.04	97.04	-50.72	109.50	0.00	0.00	0.00	
3300.00	5.39	332.40	3294.60	105.37	-55.08	118.89	0.00	0.00	0.00	
3400.00	5.39	332.40	3394.16	113.69	-59.43	128.29	0.00	0.00	0.00	
3500.00	5.39	332.40	3493.72	122.02	-63.78	137.69	0.00	0.00	0.00	
3600.00	5.39	332.40	3593.27	130.35	-68.14	147.08	0.00	0.00	0.00	
3700.00	5.39	332.40	3692.83	138.68	-72.49	156.48	0.00	0.00	0.00	
3800.00	5.39	332.40	3792.39	147.00	-76.84	165.88	0.00	0.00	0.00	
3900.00	5.39	332.40	3891.95	155.33	-81.20	175.27	0.00	0.00	0.00	
4000.00	5.39	332.40	3991.50	163.66	-85.55	184.67	0.00	0.00	0.00	
4100.00	5.39	332.40	4091.06	171.98	-89.90	194.06	0.00	0.00	0.00	
4200.00	5.39	332.40	4190.62	180.31	-94.25	203.46	0.00	0.00	0.00	
4300.00	5.39	332.40	4290.18	188.64	-98.61	212.86	0.00	0.00	0.00	
4400.00	5.39	332.40	4389.73	196.97	-102.96	222.25	0.00	0.00	0.00	
4500.00	5.39	332.40	4489.29	205.29	-107.31	231.65	0.00	0.00	0.00	
4541.71	5.39	332.40	4530.81	208.77	-109.13	235.57	0.00	0.00	0.00	
4600.00	4.23	332.40	4588.90	213.10	-111.39	240.46	2.00	-2.00	0.00	
4700.00	2.23	332.40	4688.74	218.08	-114.00	246.08	2.00	-2.00	0.00	
4800.00	0.23	332.40	4788.71	219.98	-114.99	248.22	2.00	-2.00	0.00	
4811.29	0.00	0.00	4800.00	220.00	-115.00	248.24	2.00	-2.00	0.00	
4900.00	0.00	0.00	4888.71	220.00	-115.00	248.24	0.00	0.00	0.00	
5000.00	0.00	0.00	4988.71	220.00	-115.00	248.24	0.00	0.00	0.00	



Scientific Drilling Planning Report

Company: Mack Energy Corp.	Date: 2006-01-16	Time: 13:50:14	Page: 4
Field: Sec. 22, T17S-R31E (Skelly Unit #942)	Co-ordinate(NE) Reference: Well: Skelly Unit #942, Grid North		
Site: Eddy County, NM	Vertical (TVD) Reference: KB=3873 3873.0		
Well: Skelly Unit #942	Section (VS) Reference: Well (0.00N,0.00E,332.40Azi)		
Wellpath: OH	Plan:	Plan #1	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5100.00	0.00	0.00	5088.71	220.00	-115.00	248.24	0.00	0.00	0.00	
5200.00	0.00	0.00	5188.71	220.00	-115.00	248.24	0.00	0.00	0.00	
5300.00	0.00	0.00	5288.71	220.00	-115.00	248.24	0.00	0.00	0.00	
5400.00	0.00	0.00	5388.71	220.00	-115.00	248.24	0.00	0.00	0.00	
5500.00	0.00	0.00	5488.71	220.00	-115.00	248.24	0.00	0.00	0.00	
5511.29	0.00	0.00	5500.00	220.00	-115.00	248.24	0.00	0.00	0.00	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
PBHL			5500.00	220.00	-115.00	664006.900	646669.200	32	49	28.313 N	103	51	21.165 W
-Plan hit target													

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
1800.00	1800.00	8.625	8.625	8 5/8" Casing

Annotation

MD ft	TVD ft	
1900.00	1900.00	KOP