

**McVAY DRILLING COMPANY**

P O Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL

30-025-40550

HOBBS OCD

HOBBS OCD

SEP 24 2012

SEP 24

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Well Name and Num: Lepakast State Com 1H
Location: Sec. 24, T23S, R34E
Operator: Regeneration
Drilling Contractor: McVay Drilling Company

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

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.25	232	1.14	1717	3.00	4357	1.25	9508
1.75	464	1.33	2360	1.80	4452	2.18	9845
0.75	691	2.65	2772	2.10	4557	1.67	9940
1.75	826	4.21	3023	1.70	4652	1.73	10257
0.75	257	4.37	3196	1.80	4842	1.75	10572
0.81	488	3.80	3260	1.60	5091	2.48	11078
1.93	662	4.70	3354	1.86	5225	1.00	11365
2.68	727	3.60	3513	0.75	5731	0.50	11482
3.75	758	2.30	3608	0.21	6332	1.00	11745
3.34	790	1.70	3702	0.34	6994	17.50	8378
3.49	823	2.10	3797	0.40	7309	24.40	8440
4.00	905	1.70	3892	0.47	7624	32.50	8531
4.05	940	0.20	3987	1.50	8247	31.20	8893
2.83	1035	0.90	4082	1.41	8573	31.00	8656
2.38	1096	3.10	4172	1.49	8594	40.40	8782
2.37	1221	3.30	4272	1.00	8911	55.00	8905
1.00	1426	3.70	4304	0.31	9287	68.90	9027

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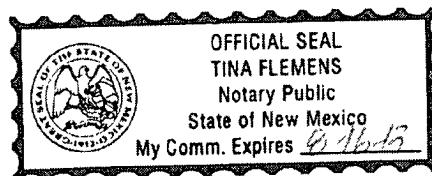
The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>
71.50	9059
74.60	9090
78.80	9120
90.70	9253
90.40	9633
89.30	10107
90.90	10487
88.10	10772
91.96	11057
91.40	11626
90.00	11815
87.80	11910
88.70	12385
89.10	12575
88.50	12667
90.00	12857
90.10	13128

By: [Signature]

Subscribed and sworn to before me this 20th day of June, 2012

[Signature]
Notary Public, Lea County, New Mexico



30-025-40550

ReGeneration Energy Group LLC

Lea County, New Mexico

Sec 24-T23S-34E

Lepakast State Com #1Y (Corrected SHL 6-6-2012)

Curve & Lateral

Survey: MWD

DDC Survey Report

18 June, 2012





Survey Certification Sheet

Regeneration Energy
Company

GC-12338
Job Number

9/26/2012
Date

Sec 24,T23s,34E
Lease

Lepakast State Com #1Y
Well Name

Lea,NM
County & State

Surveyed from a depth of: 8200 feet to 13177 feet MD

Type of Survey: MWD

Directional Supervisor/Surveyor: Charlie McMahan

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by **The Directional Drilling Company (DDC)**. This report represents a true and correct Directional survey of this well based on the original data obtained at the well site. Wellbore Coordinates are calculated using minimum curvature.

Digitally signed by Larry Wright
DN: cn=Larry Wright, o=The
Directional Drilling Company,
ou=GIM of Guidance Services,
email=larryw@directionaldrillers.c
om, c=US
Date: 2012.09.28 09:07:49 -05'00'

Larry Wright
MWD General Manager

DDC Survey Report



Company:	ReGeneration Energy Group LLC	Local Co-ordinate Reference:	Well Lepakast State Com #1Y (Corrected SHL 6-6-2012)
Project:	Lea County, New Mexico	TVD Reference:	WELL @ 3404.0usft (McVay #4)
Site:	Sec 24-T23S-34E	MD Reference:	WELL @ 3404.0usft (McVay #4)
Well:	Lepakast State Com #1Y (Corrected SHL 6-6-2012)	North Reference:	Grid
Wellbore:	Curve & Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Curve & Lateral	Database:	EDM 5000.1 Single User Db

Project:	Lea County, New Mexico		
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:	Sec 24-T23S-34E				
Site Position:	Northing:	468,109.60 usft	Latitude:	32° 17' 1.022 N	
From:	Easting:	783,508.00 usft	Longitude:	103° 24' 57.448 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well:	Lepakast State Com #1Y (Corrected SHL 6-6-2012)					
Well Position	+N/-S	0.0 usft	Northing:	468,113.60 usft	Latitude:	32° 17' 1.058 N
	+E/-W	0.0 usft	Easting:	783,551.10 usft	Longitude:	103° 24' 56.945 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,387.0 usft	

Wellbore:	Curve & Lateral					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2010	6/6/2012	(°)	(°)	(nT)	
			7.40	60.24	48,572	

Design:	Curve & Lateral					
Audit Notes:						
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	8,200.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction		
	(usft)	(usft)	(usft)	(°)		
	0.0	0.0	0.0	358.97		

Survey Program	Date	6/18/2012			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
100.0	8,200.0	Gyro Survey (Pilot Hole)	Good_gyro	Good Gyro	
8,284.0	13,177.0	MWD (Curve & Lateral)	MWD default	MWD - Standard	

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
TIE into Gyro									
8,200.0	1.31	240.47	8,195.6	86.7	110.9	84.7	0.00	0.00	0.00
8,284.0	3.80	310.20	8,279.5	88.0	107.9	86.1	4.24	2.96	83.01
8,315.0	8.40	326.90	8,310.3	90.6	105.9	88.7	15.75	14.84	53.87
8,346.0	13.30	334.60	8,340.7	95.7	103.2	93.9	16.45	15.81	24.84
8,378.0	17.50	337.80	8,371.6	103.5	99.8	101.7	13.39	13.13	10.00
8,409.0	21.10	336.20	8,400.8	112.9	95.7	111.2	11.74	11.61	-5.16
8,440.0	24.40	334.40	8,429.4	123.8	90.7	122.2	10.88	10.65	-5.81

DDC
Survey Report



Company: ReGeneration Energy Group LLC	Local Co-ordinate Reference: Well Lepakast State Com #1Y (Corrected SHL 6-6-2012)	
Project: Lea County, New Mexico	TVD Reference: WELL @ 3404.0usft (McVay #4)	
Site: Sec 24-T23S-34E	MD Reference: WELL @ 3404.0usft (McVay #4)	
Well: Lepakast State Com #1Y (Corrected SHL 6-6-2012)	North Reference: Grid	
Wellbore: Curve & Lateral	Survey Calculation Method: Minimum Curvature	
Design: Curve & Lateral	Database: EDM 5000.1 Single User Db	

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)
8,471.0	27.80	331.90	8,457.3	135.0	84.6	134.4	11.53	10.97	-8.06
8,502.0	31.20	329.70	8,484.2	149.3	77.1	147.9	11.51	10.97	-7.10
8,531.0	32.50	328.40	8,508.9	162.4	69.2	161.1	5.07	4.48	-4.48
8,562.0	31.80	327.70	8,535.1	176.4	60.5	175.3	2.56	-2.26	-2.26
8,593.0	31.20	326.90	8,561.5	190.0	51.7	189.1	2.36	-1.94	-2.58
8,624.0	31.10	326.70	8,588.1	203.4	43.0	202.6	0.46	-0.32	-0.65
8,656.0	31.00	327.00	8,615.5	217.3	33.9	216.6	0.58	-0.31	0.94
8,687.0	30.30	326.70	8,642.2	230.5	25.3	230.0	2.31	-2.26	-0.97
8,718.0	31.50	327.70	8,668.8	243.9	16.7	243.5	4.21	3.87	3.23
8,750.0	36.00	330.50	8,695.4	259.1	7.6	259.0	14.88	14.06	8.75
Crossed Hard Line @ 8761' MD									
8,761.0	37.51	331.16	8,704.2	264.9	4.4	264.8	14.18	13.72	5.99
8,782.0	40.40	332.30	8,720.5	276.5	-1.9	276.5	14.18	13.77	5.43
8,813.0	44.10	333.90	8,743.4	295.1	-11.3	295.3	12.43	11.94	5.16
8,845.0	47.30	336.30	8,765.8	315.9	-20.9	316.2	11.35	10.00	7.50
8,873.0	50.90	339.70	8,784.1	335.5	-28.8	336.0	15.79	12.86	12.14
8,905.0	55.00	341.80	8,803.4	359.6	-37.2	360.2	13.84	12.81	6.56
8,935.0	59.40	343.70	8,819.7	383.7	-44.7	384.4	15.60	14.67	6.33
8,966.0	63.80	345.10	8,834.4	409.9	-52.0	410.8	14.74	14.19	4.52
8,997.0	66.60	346.50	8,847.4	437.2	-58.9	438.2	9.92	9.03	4.52
9,027.0	68.90	347.60	8,858.8	464.3	-65.2	465.4	8.38	7.67	3.67
9,059.0	71.50	348.50	8,869.6	493.7	-71.4	494.9	8.54	8.13	2.81
9,090.0	74.60	350.80	8,878.6	522.9	-76.7	524.2	12.26	10.00	7.42
9,120.0	78.80	353.20	8,885.5	551.8	-80.8	553.2	16.02	14.00	8.00
9,143.0	82.10	354.40	8,889.3	574.4	-83.2	575.8	15.24	14.35	5.22
9,253.0	90.70	356.70	8,896.3	683.7	-91.7	685.2	8.09	7.82	2.09
9,348.0	88.80	0.30	8,896.7	778.6	-94.2	780.2	4.28	-2.00	3.79
9,443.0	91.20	359.40	8,896.7	873.6	-94.4	875.2	2.70	2.53	-0.95
9,538.0	89.60	359.40	8,896.0	968.6	-95.4	970.2	1.68	-1.68	0.00
9,633.0	90.40	359.20	8,896.0	1,063.6	-96.6	1,065.2	0.87	0.84	-0.21
9,728.0	90.10	359.70	8,895.6	1,158.6	-97.5	1,160.2	0.61	-0.32	0.53
9,822.0	89.50	359.20	8,895.9	1,252.6	-98.4	1,254.2	0.83	-0.64	-0.53
9,917.0	88.80	358.70	8,897.3	1,347.6	-100.2	1,349.2	0.91	-0.74	-0.53
10,012.0	89.80	358.50	8,898.5	1,442.5	-102.5	1,444.1	1.07	1.05	-0.21
10,107.0	89.30	359.20	8,899.2	1,537.5	-104.4	1,539.1	0.91	-0.53	0.74
10,202.0	92.80	1.00	8,897.5	1,632.5	-104.2	1,634.1	4.14	3.68	1.89
10,297.0	93.00	2.20	8,892.7	1,727.3	-101.6	1,728.9	1.28	0.21	1.26
10,392.0	91.40	1.10	8,889.0	1,822.2	-98.8	1,823.7	2.04	-1.68	-1.16
10,487.0	90.90	0.40	8,887.1	1,917.2	-97.6	1,918.6	0.91	-0.53	-0.74
10,582.0	91.10	359.40	8,885.5	2,012.2	-97.8	2,013.6	1.07	0.21	-1.05
10,677.0	89.40	359.40	8,885.1	2,107.2	-98.8	2,108.6	1.79	-1.79	0.00
10,772.0	88.10	358.70	8,887.1	2,202.1	-100.3	2,203.6	1.55	-1.37	-0.74
10,857.0	87.50	358.80	8,890.8	2,297.0	-102.4	2,298.5	0.64	-0.63	0.11

DDC Survey Report



Company: ReGeneration Energy Group LLC

Local Co-ordinate Reference: Well Lepakast State Com #1Y (Corrected SHL 6-6-2012)

Project: Lea County, New Mexico

TVD Reference: WELL @ 3404.0usft (McVay #4)

Site: Sec 24-T23S-34E

MD Reference: WELL @ 3404.0usft (McVay #4)

Well: Lepakast State Com #1Y (Corrected SHL 6-6-2012)

North Reference: Grid

Wellbore: Curve & Lateral

Survey Calculation Method: Minimum Curvature

Design: Curve & Lateral

Database: EDM 5000.1 Single User Db

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)
10,962.0	88.30	1.10	8,894.3	2,391.9	-102.5	2,393.4	2.56	0.84	2.42
11,057.0	91.90	2.40	8,894.1	2,486.9	-99.6	2,488.3	4.03	3.79	1.37
11,151.0	91.90	2.20	8,891.0	2,580.8	-95.8	2,582.1	0.21	0.00	-0.21
11,246.0	91.70	1.50	8,888.0	2,675.7	-92.7	2,676.9	0.77	-0.21	-0.74
11,341.0	88.90	1.10	8,887.5	2,770.6	-90.6	2,771.8	2.98	-2.95	-0.42
11,436.0	92.10	1.30	8,886.7	2,865.6	-88.6	2,866.7	3.37	3.37	0.21
11,531.0	92.10	2.00	8,883.2	2,960.5	-85.9	2,961.6	0.74	0.00	0.74
11,626.0	91.40	0.80	8,880.3	3,055.4	-83.5	3,056.4	1.46	-0.74	-1.26
11,721.0	89.70	0.60	8,879.4	3,150.4	-82.4	3,151.4	1.80	-1.79	-0.21
11,815.0	90.00	1.30	8,879.6	3,244.4	-80.8	3,245.3	0.81	0.32	0.74
11,910.0	87.80	0.80	8,881.4	3,339.3	-79.1	3,340.2	2.37	-2.32	-0.53
12,005.0	88.30	0.30	8,884.7	3,434.3	-78.2	3,435.1	0.74	0.53	-0.53
12,100.0	87.80	0.60	8,887.9	3,529.2	-77.4	3,530.0	0.61	-0.53	0.32
12,195.0	89.20	0.40	8,890.4	3,624.2	-76.6	3,625.0	1.49	1.47	-0.21
12,290.0	89.00	0.30	8,891.9	3,719.2	-76.0	3,719.9	0.24	-0.21	-0.11
12,385.0	88.70	359.20	8,893.8	3,814.2	-76.4	3,814.9	1.20	-0.32	-1.16
12,480.0	89.70	357.30	8,895.1	3,909.1	-79.3	3,909.9	2.26	1.05	-2.00
12,575.0	89.10	356.90	8,896.1	4,004.0	-84.1	4,004.8	0.76	-0.63	-0.42
12,667.0	88.50	357.10	8,898.0	4,095.8	-89.0	4,096.8	0.69	-0.65	0.22
12,793.0	89.80	356.70	8,899.9	4,221.6	-95.8	4,222.7	1.08	1.03	-0.32
12,857.0	90.00	357.30	8,900.0	4,285.5	-99.1	4,286.6	0.99	0.31	0.94
12,950.0	89.90	357.40	8,900.1	4,378.4	-103.4	4,379.6	0.15	-0.11	0.11
13,045.0	90.00	358.30	8,900.2	4,473.4	-107.0	4,474.6	0.95	0.11	0.95
13,128.0	90.10	358.30	8,900.1	4,556.3	-109.4	4,557.6	0.12	0.12	0.00
Projection to Bit									
13,177.0	90.10	358.30	8,900.0	4,605.3	-110.9	4,606.6	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,200.0	8,195.6	86.7	110.9	T/E into Gyro
8,761.0	8,704.2	264.9	4.4	Crossed Hard Line @ 8761' MD
13,177.0	8,900.0	4,605.3	-110.9	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____