

District I
1625 N. Trinch Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1383 Fax: (575) 748-0720
District III
1009 Rio Bonito Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3400 Fax: (505) 476-3467

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised August 1, 2011

Permit

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Regeneration Energy Corp. PO Box 210 Artesia, NM 88211-0210		OGRID Number 280240
		API Number 30-025-25269
Property Code 38815	Property Name State "R" Com	Well No. 1H

7 Surface Location

UL - Lot N	Section 25	Township 23S	Range 34E	Lot Idn N	Feet from 660	N/S Line S	Feet From 1980	E/W Line W	County Lea
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8 Pool Information

Antelope Ridge Bone Spring

Additional Well Information

Work Type E	Well Type O	Cable/Rotary	Lease Type State	Ground Level Elevation 3387.3
Multiple N	Proposed Depth	Formation	Contractor	Spud Date 9/20/2011
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

19 Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13 3/8	48	801	400	0 (Existing)
Int	12.25	10 3/4	51	5212	2476	0 (Existing)
Int	9.5	7 5/8	33.7	5174-12168	700	7400 (Existing)
Prod	6.5	7 x 4 1/2	26 x 11.6	7" 5100' 4 1/2" 5100' 1396'	NA	NA

Casing/Cement Program: Additional Comments

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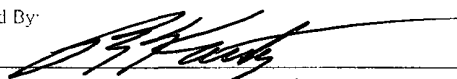
Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram and Annular	3000	3000	to be determined

I hereby certify that the information given above is true and complete to the best of my knowledge and belief
I further certify that the drilling pit will be constructed according to NMOC guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☒.

OIL CONSERVATION DIVISION

Approved By:



Printed name: Raye Miller

Title: PETROLEUM ENGINEER

Title: President

Approved Date: SEP 19 2011

Expiration Date:

E-mail Address: emiller@pvt.n.net

Date: 9/7/11

Phone: 575 736 3535

Conditions of Approval Attached

SEP 19 2011

District I
1625 N French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-6720
District II
811 S First St., Artesia, NM 88210
Phone (575) 748-1281 Fax (575) 748-9720
District III
1000 Rio Pecos Road, Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-25269	² Pool Code 2200	³ Pool Name Antelope Ridge Bone Spring
⁴ Property Code 38815	⁵ Property Name State "R" Com	⁶ Well Number 1H
⁷ OGRID No. 280240	⁸ Operator Name Regeneration Energy Corp.	⁹ Elevation 3387.3

¹⁰ Surface Location

UL or lot no. N	Section 25	Township 23S	Range 34E	Lot Idn N	Feet from the 660	North/South line S	Feet from the 1980	East/West line W	County Lea
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. C	Section 25	Township 23S	Range 34E	Lot Idn C	Feet from the 330	North/South line N	Feet from the 1980	East/West line W	County Lea
¹² Dedicated Acres 640 PA	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ 	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Raye Miller 9/7/11 Signature Date Raye Miller Printed Name rmiller@prtn.net E-mail Address	
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. April 8, 1976 Date of Survey Signature and Seal of Professional Surveyor: John West Existing Certificate Number	

original
plat

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

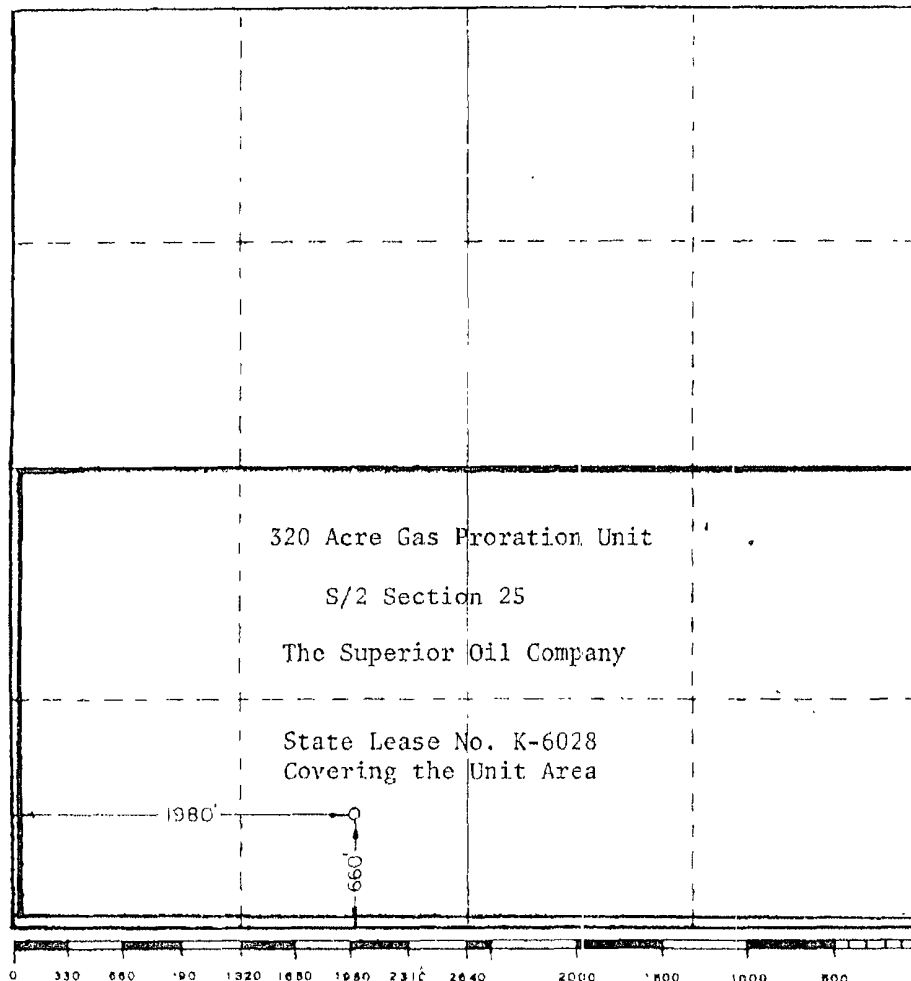
Operator THE SUPERIOR OIL COMPANY			Lease STATE R		Well No. 1
Unit Letter N	Section 25	Township 23 SOUTH	Range 34 EAST	County LEA	
Actual Well Location of Well: 660 feet from the SOUTH line and 1980 feet from the WEST line					
Ground Level Elev 3387.3	Producing Formation Morrow	Pool Antelope Ridge		Feet to Surface 320	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation S/2 Section 25 is one.
State Lease (No. K-6028)

If answer is "no," list the owners and tract descriptions which have actually been consolidated (list reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

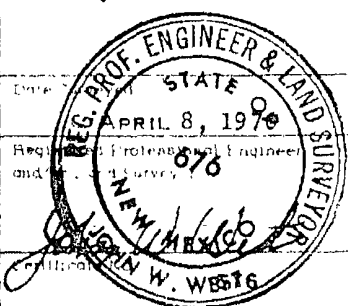
Flynt Emmons
Flynt Emmons

Division Dirg. Engineer

The Superior Oil Company

April 21, 1976

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.



API: 30-025-25269

Created by:	Comment	Comment Date
JWM	Regeneration would request approval of a standard project area encompassing all 640 acres in Section 25. The section is comprised of two state leases N/2 and S/2. ⁸¹¹ Our working interest ownership is completely uniform as to all horizons in the entire 640 acres. The only difference in ownership is the royalty rates and each half section contains no lots such that the communitized royalty under the 640 acre project area would be identical to the 160 acre project area. We believe this request meets all the requirements of a standard project area that would prevent waste by allowing the use of one central battery facility for this and subsequent wells.	8/26/2011

BC Propose to set a whipstock, cut a window in the 7 $\frac{5}{8}$ " casing at 8403' and drill a horizontal Bone Spring well to a measured depth of 12965' and a TVD of 8880' using a 6 $\frac{1}{2}$ " bit. We plan to run 7"/26/L80/EVE from 0 to 5100' and 4 $\frac{1}{2}$ "/11.6/L80/EVE casing from 5100 - 12965' and complete the well without cementing casing using a packer/sliding sleeve completion having 15 to 20 stages. As an alternative we request approval to run the same 7"x4 $\frac{1}{2}$ " casing string, cement with 700 CF acid soluble cement, circulate excess cement out of hole from DV tool set at 8600' MD and complete the Bone Spring through cemented casing in 6-8 stages. Both completion alternatives leave us the option of removing the 7"x4 $\frac{1}{2}$ " casing from the vertical portion of the wellbore and testing deeper Bone Spring horizons in the future. The end of the lateral location is planned at 330' FNL, 1980' FWL, Section 25 T23S, R34E. A directional plan is attached. We plan to drill with cut brine and expect the Bone Spring to be sub-normally pressured. 9/7/11

BC

Regeneration Energy

Lea County

State R Com

#1H

OH

Plan: Plan #1

Pathfinder X & Y Report

07 September, 2011

Pathfinder Pathfinder X & Y Report

Company:	Regeneration Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea County	TVD Reference:	KB = 17 @ 3404.30usft (TBA)
Site:	State R	MD Reference:	KB = 17 @ 3404.30usft (TBA)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database	EDM 5000.1 Single User Db

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

Site:	State R				
Site Position:		Northings:	463,136,986 usft	Latitude:	32° 16' 12.060 N
From:	Map	Easting:	780,639,100 usft	Longitude:	103° 25' 31.354 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.48 °

Well	#1H					
Well Position	+N/-S	0.00 usft	Northings:	463,136,986 usft	Latitude:	32° 16' 12.060 N
	+E/-W	0.00 usft	Easting:	780,639,100 usft	Longitude:	103° 25' 31.354 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,387.30 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/6/2011	7.48	60.27	48,675

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	359.47

Survey Tool Program		Date	9/7/2011		
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
0.00	12,965.14	Plan #1 (OH)			

Pathfinder Pathfinder X & Y Report

Company: Regeneration Energy
Project: Lea County
Site: State R
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17 @ 3404.30usft (TBA)
MD Reference: KB = 17 @ 3404.30usft (TBA)
North Reference: Gnd
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	0.00	-3,404.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
100.00	0.00	0.00	100.00	-3,304.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
200.00	0.00	0.00	200.00	-3,204.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
300.00	0.00	0.00	300.00	-3,104.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
400.00	0.00	0.00	400.00	-3,004.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
500.00	0.00	0.00	500.00	-2,904.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
600.00	0.00	0.00	600.00	-2,804.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
700.00	0.00	0.00	700.00	-2,704.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
800.00	0.00	0.00	800.00	-2,604.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
900.00	0.00	0.00	900.00	-2,504.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,000.00	0.00	0.00	1,000.00	-2,404.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,100.00	0.00	0.00	1,100.00	-2,304.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,200.00	0.00	0.00	1,200.00	-2,204.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,300.00	0.00	0.00	1,300.00	-2,104.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,400.00	0.00	0.00	1,400.00	-2,004.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,500.00	0.00	0.00	1,500.00	-1,904.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,600.00	0.00	0.00	1,600.00	-1,804.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,700.00	0.00	0.00	1,700.00	-1,704.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,800.00	0.00	0.00	1,800.00	-1,604.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
1,900.00	0.00	0.00	1,900.00	-1,504.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,000.00	0.00	0.00	2,000.00	-1,404.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,100.00	0.00	0.00	2,100.00	-1,304.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,200.00	0.00	0.00	2,200.00	-1,204.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,300.00	0.00	0.00	2,300.00	-1,104.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,400.00	0.00	0.00	2,400.00	-1,004.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,500.00	0.00	0.00	2,500.00	-904.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
2,600.00	0.00	0.00	2,600.00	-804.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10	

Pathfinder Pathfinder X & Y Report

Company: Regeneration Energy
Project: Lea County
Site: State R
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17 @ 3404.30usft (TBA)
MD Reference: KB = 17 @ 3404.30usft (TBA)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,700.00	0.00	0.00	2,700.00	-704.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
2,800.00	0.00	0.00	2,800.00	-604.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
2,900.00	0.00	0.00	2,900.00	-504.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,000.00	0.00	0.00	3,000.00	-404.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,100.00	0.00	0.00	3,100.00	-304.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,200.00	0.00	0.00	3,200.00	-204.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,300.00	0.00	0.00	3,300.00	-104.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,400.00	0.00	0.00	3,400.00	-4.30	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,500.00	0.00	0.00	3,500.00	95.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,600.00	0.00	0.00	3,600.00	195.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,700.00	0.00	0.00	3,700.00	295.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,800.00	0.00	0.00	3,800.00	395.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
3,900.00	0.00	0.00	3,900.00	495.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,000.00	0.00	0.00	4,000.00	595.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,100.00	0.00	0.00	4,100.00	695.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,200.00	0.00	0.00	4,200.00	795.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,300.00	0.00	0.00	4,300.00	895.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,400.00	0.00	0.00	4,400.00	995.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,500.00	0.00	0.00	4,500.00	1,095.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,600.00	0.00	0.00	4,600.00	1,195.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,700.00	0.00	0.00	4,700.00	1,295.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,800.00	0.00	0.00	4,800.00	1,395.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
4,900.00	0.00	0.00	4,900.00	1,495.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
5,000.00	0.00	0.00	5,000.00	1,595.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
5,100.00	0.00	0.00	5,100.00	1,695.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
5,200.00	0.00	0.00	5,200.00	1,795.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10
5,300.00	0.00	0.00	5,300.00	1,895.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10

Pathfinder Pathfinder X & Y Report

Company: Regeneration Energy
Project: Lea County
Site: State R
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17 @ 3404.30usft (TBA)
MD Reference: KB = 17 @ 3404.30usft (TBA)
North Reference: Gnd
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLog (*100usft)	Northing (usft)	Easting (usft)	
5,400.00	0.00	0.00	5,400.00	1,995.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
5,500.00	0.00	0.00	5,500.00	2,095.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
5,600.00	0.00	0.00	5,600.00	2,195.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
5,700.00	0.00	0.00	5,700.00	2,295.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
5,800.00	0.00	0.00	5,800.00	2,395.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
5,900.00	0.00	0.00	5,900.00	2,495.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,000.00	0.00	0.00	6,000.00	2,595.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,100.00	0.00	0.00	6,100.00	2,695.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,200.00	0.00	0.00	6,200.00	2,795.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,300.00	0.00	0.00	6,300.00	2,895.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,400.00	0.00	0.00	6,400.00	2,995.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,500.00	0.00	0.00	6,500.00	3,095.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,600.00	0.00	0.00	6,600.00	3,195.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,700.00	0.00	0.00	6,700.00	3,295.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,800.00	0.00	0.00	6,800.00	3,395.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
6,900.00	0.00	0.00	6,900.00	3,495.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,000.00	0.00	0.00	7,000.00	3,595.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,100.00	0.00	0.00	7,100.00	3,695.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,200.00	0.00	0.00	7,200.00	3,795.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,300.00	0.00	0.00	7,300.00	3,895.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,400.00	0.00	0.00	7,400.00	3,995.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,500.00	0.00	0.00	7,500.00	4,095.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,600.00	0.00	0.00	7,600.00	4,195.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,700.00	0.00	0.00	7,700.00	4,295.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,800.00	0.00	0.00	7,800.00	4,395.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
7,900.00	0.00	0.00	7,900.00	4,495.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
8,000.00	0.00	0.00	8,000.00	4,595.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	

Pathfinder

Pathfinder X & Y Report

Company: Regeneration Energy
 Project: Lea County
 Site: State R
 Well: #1H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #1H
 TVD Reference: KB = 17 @ 3404.30usft (TBA)
 MD Reference: KB = 17 @ 3404.30usft (TBA)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,100.00	0.00	0.00	8,100.00	4,695.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
8,200.00	0.00	0.00	8,200.00	4,795.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
8,300.00	0.00	0.00	8,300.00	4,895.70	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
8,402.54	0.00	0.00	8,402.54	4,998.24	0.00	0.00	0.00	0.00	463,136.99	780,639.10	
8,425.00	2.70	359.47	8,424.99	5,020.69	0.53	0.00	0.53	12.00	463,137.51	780,639.10	
8,450.00	5.70	359.47	8,449.92	5,045.62	2.36	-0.02	2.36	12.00	463,139.34	780,639.08	
8,475.00	8.70	359.47	8,474.72	5,070.42	5.49	-0.05	5.49	12.00	463,142.47	780,639.05	
8,500.00	11.70	359.47	8,499.32	5,095.02	9.91	-0.09	9.91	12.00	463,146.90	780,639.01	
8,525.00	14.70	359.47	8,523.66	5,119.36	15.62	-0.14	15.62	12.00	463,152.60	780,638.96	
8,550.00	17.70	359.47	8,547.67	5,143.37	22.59	-0.21	22.59	12.00	463,159.58	780,638.89	
8,575.00	20.70	359.47	8,571.27	5,166.97	30.81	-0.28	30.81	12.00	463,167.79	780,638.82	
8,600.00	23.70	359.47	8,594.42	5,190.12	40.25	-0.37	40.25	12.00	463,177.24	780,638.73	
8,625.00	26.70	359.47	8,617.04	5,212.74	50.89	-0.47	50.89	12.00	463,187.88	780,638.63	
8,650.00	29.70	359.47	8,639.07	5,234.77	62.70	-0.58	62.70	12.00	463,199.69	780,638.52	
8,675.00	32.70	359.47	8,660.45	5,256.15	75.65	-0.70	75.65	12.00	463,212.63	780,638.40	
8,700.00	35.70	359.47	8,681.13	5,276.83	89.70	-0.83	89.70	12.00	463,226.68	780,638.27	
8,725.00	38.70	359.47	8,701.04	5,296.74	104.81	-0.97	104.81	12.00	463,241.79	780,638.13	
8,750.00	41.70	359.47	8,720.13	5,315.83	120.94	-1.12	120.94	12.00	463,257.93	780,637.98	
8,775.00	44.70	359.47	8,738.36	5,334.06	138.05	-1.27	138.05	12.00	463,275.04	780,637.83	
8,800.00	47.70	359.47	8,755.66	5,351.36	156.09	-1.44	156.10	12.00	463,293.08	780,637.66	
8,825.00	50.70	359.47	8,772.00	5,367.70	175.01	-1.62	175.02	12.00	463,312.00	780,637.48	
8,850.00	53.70	359.47	8,787.32	5,383.02	194.76	-1.80	194.77	12.00	463,331.75	780,637.30	
8,875.00	56.70	359.47	8,801.59	5,397.29	215.28	-1.99	215.29	12.00	463,352.27	780,637.11	
8,900.00	59.70	359.47	8,814.76	5,410.46	236.53	-2.18	236.54	12.00	463,373.51	780,636.92	
8,925.00	62.70	359.47	8,826.81	5,422.51	258.43	-2.39	258.44	12.00	463,395.42	780,636.71	
8,950.00	65.70	359.47	8,837.69	5,433.39	280.93	-2.59	280.94	12.00	463,417.92	780,636.51	
8,975.00	68.70	359.47	8,847.38	5,443.08	303.97	-2.81	303.99	12.00	463,440.96	780,636.29	

Pathfinder

Pathfinder X & Y Report

Company: Regeneration Energy
 Project: Lea County
 Site: State R
 Well: #1H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #1H
 TVD Reference: KB = 17 @ 3404.30usft (TBA)
 MD Reference: KB = 17 @ 3404.30usft (TBA)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,000.00	71.70	359.47	8,855.84	5,451.54	327.49	-3.02	327.51	12.00	463,464.48	780,636.08
9,025.00	74.70	359.47	8,863.07	5,458.77	351.42	-3.24	351.44	12.00	463,488.41	780,635.86
9,050.00	77.70	359.47	8,869.04	5,464.74	375.70	-3.47	375.71	12.00	463,512.68	780,635.63
9,075.00	80.70	359.47	8,873.72	5,469.42	400.25	-3.70	400.27	12.00	463,537.23	780,635.40
9,100.00	83.70	359.47	8,877.12	5,472.82	425.01	-3.92	425.03	12.00	463,562.00	780,635.18
9,125.00	86.70	359.47	8,879.21	5,474.91	449.92	-4.15	449.94	12.00	463,586.91	780,634.95
9,150.00	89.70	359.47	8,880.00	5,475.70	474.90	-4.38	474.92	12.00	463,611.89	780,634.72
9,152.54	90.00	359.47	8,880.00	5,475.70	477.45	-4.41	477.47	12.00	463,614.43	780,634.69
9,200.00	90.00	359.47	8,880.00	5,475.70	524.90	-4.85	524.92	0.00	463,661.89	780,634.25
9,300.00	90.00	359.47	8,880.00	5,475.70	624.90	-5.77	624.92	0.00	463,761.88	780,633.33
9,400.00	90.00	359.47	8,880.00	5,475.70	724.89	-6.69	724.92	0.00	463,861.88	780,632.41
9,500.00	90.00	359.47	8,880.00	5,475.70	824.89	-7.62	824.92	0.00	463,961.88	780,631.48
9,600.00	90.00	359.47	8,880.00	5,475.70	924.89	-8.54	924.92	0.00	464,061.87	780,630.56
9,700.00	90.00	359.47	8,880.00	5,475.70	1,024.88	-9.46	1,024.92	0.00	464,161.87	780,629.64
9,800.00	90.00	359.47	8,880.00	5,475.70	1,124.88	-10.38	1,124.92	0.00	464,261.86	780,628.72
9,900.00	90.00	359.47	8,880.00	5,475.70	1,224.87	-11.31	1,224.92	0.00	464,361.86	780,627.79
10,000.00	90.00	359.47	8,880.00	5,475.70	1,324.87	-12.23	1,324.92	0.00	464,461.85	780,626.87
10,100.00	90.00	359.47	8,880.00	5,475.70	1,424.86	-13.15	1,424.92	0.00	464,561.85	780,625.95
10,200.00	90.00	359.47	8,880.00	5,475.70	1,524.86	-14.08	1,524.92	0.00	464,661.85	780,625.02
10,300.00	90.00	359.47	8,880.00	5,475.70	1,624.86	-15.00	1,624.92	0.00	464,761.84	780,624.10
10,400.00	90.00	359.47	8,880.00	5,475.70	1,724.85	-15.92	1,724.92	0.00	464,861.84	780,623.18
10,500.00	90.00	359.47	8,880.00	5,475.70	1,824.85	-16.85	1,824.92	0.00	464,961.83	780,622.25
10,600.00	90.00	359.47	8,880.00	5,475.70	1,924.84	-17.77	1,924.92	0.00	465,061.83	780,621.33
10,700.00	90.00	359.47	8,880.00	5,475.70	2,024.84	-18.69	2,024.92	0.00	465,161.83	780,620.41
10,800.00	90.00	359.47	8,880.00	5,475.70	2,124.83	-19.62	2,124.92	0.00	465,261.82	780,619.48
10,900.00	90.00	359.47	8,880.00	5,475.70	2,224.83	-20.54	2,224.92	0.00	465,361.82	780,618.56
11,000.00	90.00	359.47	8,880.00	5,475.70	2,324.83	-21.46	2,324.92	0.00	465,461.81	780,617.64

Pathfinder Pathfinder X & Y Report

Company: Regeneration Energy
Project: Lea County
Site: State R Com
Well: #1H
Wellbore: OH
Design: Plan #1

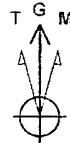
Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17 @ 3404.30usft (1BA)
MD Reference: KB = 17 @ 3404.30usft (TBA)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
11,100.00	90.00	359.47	8,880.00	5,475.70	2,424.82	-22.30	2,424.92	0.00	465,561.81	780,616.71	
11,200.00	90.00	359.47	8,880.00	5,475.70	2,524.82	-23.31	2,524.92	0.00	465,661.80	780,615.79	
11,300.00	90.00	359.47	8,880.00	5,475.70	2,624.81	-24.23	2,624.92	0.00	465,761.80	780,614.87	
11,400.00	90.00	359.47	8,880.00	5,475.70	2,724.81	-25.16	2,724.92	0.00	465,861.80	780,613.94	
11,500.00	90.00	359.47	8,880.00	5,475.70	2,824.80	-26.08	2,824.92	0.00	465,961.79	780,613.02	
11,600.00	90.00	359.47	8,880.00	5,475.70	2,924.80	-27.00	2,924.92	0.00	466,061.79	780,612.10	
11,700.00	90.00	359.47	8,880.00	5,475.70	3,024.80	-27.92	3,024.92	0.00	466,161.78	780,611.18	
11,800.00	90.00	359.47	8,880.00	5,475.70	3,124.79	-28.85	3,124.92	0.00	466,261.78	780,610.25	
11,900.00	90.00	359.47	8,880.00	5,475.70	3,224.79	-29.77	3,224.92	0.00	466,361.77	780,609.33	
12,000.00	90.00	359.47	8,880.00	5,475.70	3,324.78	-30.69	3,324.92	0.00	466,461.77	780,608.41	
12,100.00	90.00	359.47	8,880.00	5,475.70	3,424.78	-31.62	3,424.92	0.00	466,561.77	780,607.48	
12,200.00	90.00	359.47	8,880.00	5,475.70	3,524.77	-32.54	3,524.92	0.00	466,661.76	780,606.56	
12,300.00	90.00	359.47	8,880.00	5,475.70	3,624.77	-33.46	3,624.92	0.00	466,761.76	780,605.64	
12,400.00	90.00	359.47	8,880.00	5,475.70	3,724.77	-34.39	3,724.92	0.00	466,861.75	780,604.71	
12,500.00	90.00	359.47	8,880.00	5,475.70	3,824.76	-35.31	3,824.92	0.00	466,961.75	780,603.79	
12,600.00	90.00	359.47	8,880.00	5,475.70	3,924.76	-36.23	3,924.92	0.00	467,061.74	780,602.87	
12,700.00	90.00	359.47	8,880.00	5,475.70	4,024.75	-37.16	4,024.92	0.00	467,161.74	780,601.94	
12,800.00	90.00	359.47	8,880.00	5,475.70	4,124.75	-38.08	4,124.92	0.00	467,261.74	780,601.02	
12,900.00	90.00	359.47	8,880.00	5,475.70	4,224.74	-39.00	4,224.92	0.00	467,361.73	780,600.10	
12,965.14	90.00	359.47	8,880.00	5,475.70	4,289.88	-39.60	4,290.06	0.00	467,426.87	780,599.50	

Checked By: _____ Approved By: _____ Date: _____

Project: Lea County
 Site: State R **Com**
 Well: #1H
 Wellbore: OH
 Plan: Plan #1 (#1H/OH)

WELL DETAILS #1H						
Ground Elevation 3387.33						
KCS Elevation, CR = 17 @ 34/4 19.45 (TFA)						
Rig Name TBA						
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	463136.985	786639.108	32° 16' 12.000 N	103° 25' 31.354 W	

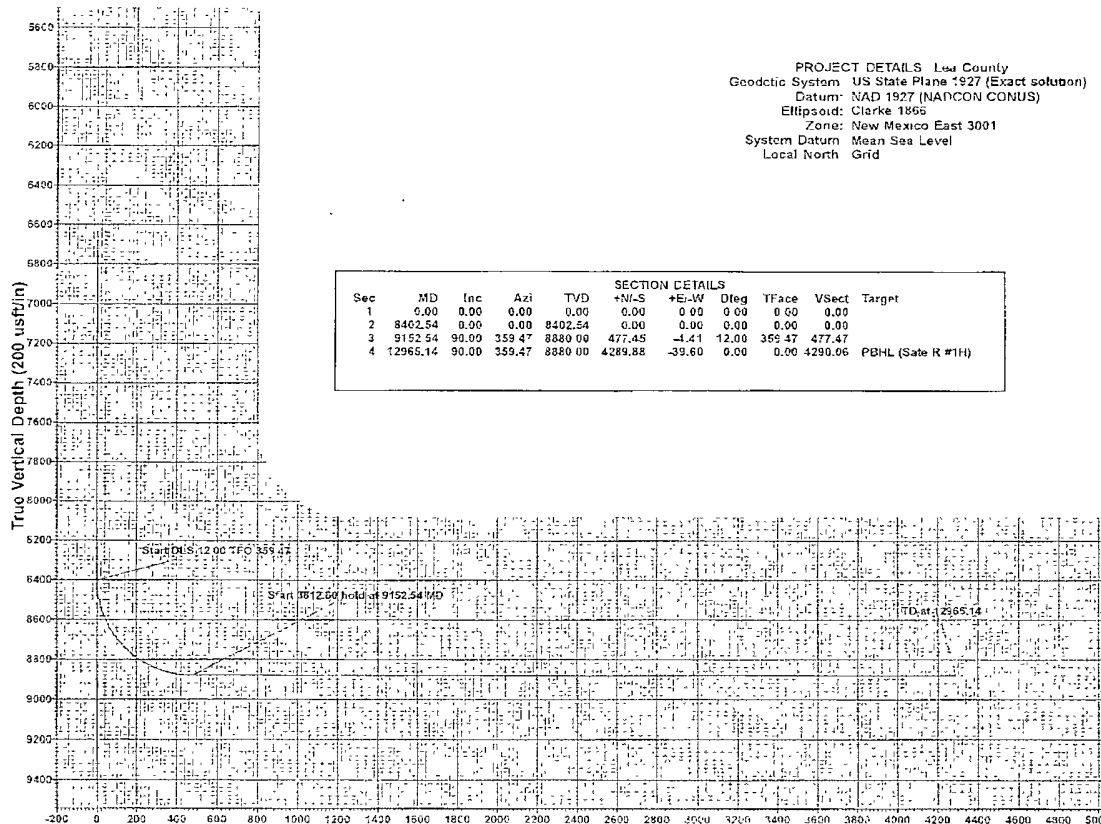


Azimuths to Grid North
 True North: -0.48°
 Magnetic North: 7.00°
 Magnetic Field
 Strength: 48674.6nT
 Dip Angle: 60.27°
 Date: 9/6/2011
 Model: IGRF200510

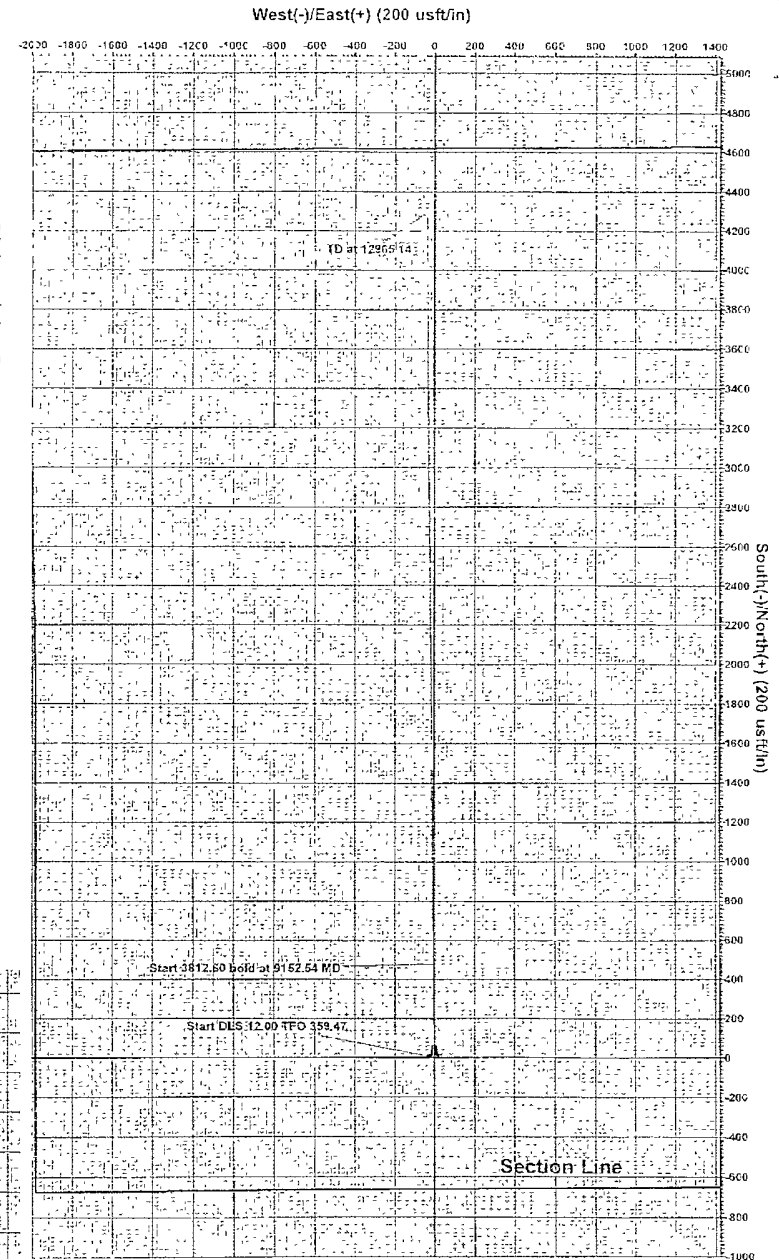
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PBHL (State R #1H)	8880.00	4269.86	-39.60	157429.868	780999.496	Point

PROJECT DETAILS Lea County
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level
 Local North: Grid

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8402.54	0.00	0.00	8402.54	0.00	0.00	0.00	0.00	0.00	
3	9152.54	90.00	359.47	8880.00	477.45	-4.41	12.00	359.47	477.47	
4	12965.14	90.00	359.47	8880.00	4289.88	-39.60	0.00	0.00	4290.06	PBHL (State R #1H)



Vertical Section at 359.47° (200 usft/in)



Section Line

Lease lines are subject to customer approval

Plan: Plan #1 (#1H/OH)	
Created By: Sam Bille	Date: 10/31 September 07 2011
Checked: _____	Date: _____