

## Results of Directional Survey

|             |                     |           |                                         |
|-------------|---------------------|-----------|-----------------------------------------|
| API number: | <b>30-025-41522</b> |           |                                         |
| OGRID:      |                     | Operator: | <b>REGENERATION ENERGY, CORPORATION</b> |
|             |                     | Property: | <b>LANDRETH FEDERAL COM</b> # 1H        |

|         |        |          |           |            |            |            |            |
|---------|--------|----------|-----------|------------|------------|------------|------------|
| surface | ULSTR: | <b>M</b> | <b>24</b> | <b>T</b>   | <b>23S</b> | <b>R</b>   | <b>34E</b> |
|         |        |          |           | <b>330</b> | <b>FSL</b> | <b>280</b> | <b>FWL</b> |

|              |           |                |            |             |            |            |            |
|--------------|-----------|----------------|------------|-------------|------------|------------|------------|
| BH Loc       | ULSTR:    | <b>D</b>       | <b>24</b>  | <b>T</b>    | <b>23S</b> | <b>R</b>   | <b>34E</b> |
| <b>15719</b> | <b>MD</b> | <b>11368.6</b> | <b>TVD</b> | <b>330</b>  | <b>FNL</b> | <b>347</b> | <b>FWL</b> |
|              |           |                |            | <b>4950</b> | <b>FSL</b> |            |            |

|              |           |                |            |             |            |            |            |
|--------------|-----------|----------------|------------|-------------|------------|------------|------------|
| Top Perf/OH  | ULSTR:    | <b>M</b>       | <b>24</b>  | <b>T</b>    | <b>23S</b> | <b>R</b>   | <b>34E</b> |
| <b>12035</b> | <b>MD</b> | <b>11400.1</b> | <b>TVD</b> | <b>1270</b> | <b>FSL</b> | <b>414</b> | <b>FWL</b> |

|              |           |                |            |             |            |            |            |
|--------------|-----------|----------------|------------|-------------|------------|------------|------------|
| Bot Perf/OH  | ULSTR:    | <b>D</b>       | <b>24</b>  | <b>T</b>    | <b>23S</b> | <b>R</b>   | <b>34E</b> |
| <b>15374</b> | <b>MD</b> | <b>11390.2</b> | <b>TVD</b> | <b>674</b>  | <b>FNL</b> | <b>347</b> | <b>FWL</b> |
|              |           |                |            | <b>4606</b> | <b>FSL</b> |            |            |

|              | MD           | N/S     | E/W    | VD       |
|--------------|--------------|---------|--------|----------|
|              | 12003        | 907.77  | 132.97 | 11400.69 |
| TOP PERFS/OH | <b>12035</b> | 939.74  | 134.34 | 11400.13 |
|              | 12035        | 939.74  | 134.34 | 11400.13 |
|              | 15332        | 4233.85 | 66.62  | 11391.24 |
| BOT PERFS/OH | <b>15374</b> | 4275.83 | 67.43  | 11390.22 |
|              | 15428        | 4329.80 | 68.46  | 11388.90 |

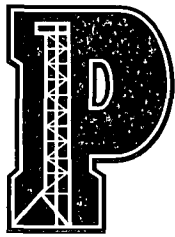
|              |              |         |       |          |
|--------------|--------------|---------|-------|----------|
| NEXT TO LAST | 15674        | 4575.24 | 67.81 | 11373.23 |
| LAST READING | 15719        | 4620.00 | 67.27 | 11368.61 |
| TD           | <b>15719</b> | 4620.00 | 67.27 | 11368.61 |

|                  |      |    |     |    |
|------------------|------|----|-----|----|
| Surface Location | 330  | FS | 280 | FW |
| Projected BHL    | 4950 | FS | 347 | FW |
| Location of      |      |    |     |    |
| Top Perfs/OH     | 1270 | FS | 414 | FW |
| Bottom Perfs/OH  | 4606 | FS | 347 | FW |

### SUMMARY of Subsurface Locations

| Surface Location | M-24-23S-34E | 330  | FS | 280 | FW | Vert. Depth |
|------------------|--------------|------|----|-----|----|-------------|
|                  |              |      |    |     |    |             |
| Top Perfs/OH     | M-24-23S-34E | 1270 | FS | 414 | FW | 11400.13    |
| Bottom Perfs/OH  | D-24-23S-34E | 4606 | FS | 347 | FW | 11390.22    |
|                  |              |      |    |     |    |             |
| Projected TD     | D-24-23S-34E | 4950 | FS | 347 | FW | 11368.61    |

APR 21 2014



**PATRIOT DRILLING, LLC**

OPERATOR: Regeneration Energy Corp  
WELL/LEASE: Landreth Fed Com # 1 H  
COUNTY: Lea Co., New Mexico  
Sec.24, T23S, R34E

HOBBS OCD

APR 09 2014

RECEIVED

**STATE OF NEW MEXICO  
DEVIATION REPORT**

| <u>Depth</u> | <u>Deviation</u> | <u>Depth</u> | <u>Deviation</u> |
|--------------|------------------|--------------|------------------|
| 300          | 1 1/4            | 4,968        | 1 1/4            |
| 515          | 1                | 5,222        | 1                |
| 851          | 1                | 5,508        | 1 1/2            |
| 1,133        | 3/4              | 5,984        | 3/4              |
| 1,410        | 1/2              | 6,364        | 3/4              |
| 1,600        | 1                | 6,935        | 3/4              |
| 1,981        | 2                | 7,126        | 3/4              |
| 2,172        | 2                | 7,507        | 1 1/2            |
| 2,362        | 2                | 7,793        | 3/4              |
| 2,648        | 2                | 8,079        | 1/4              |
| 2,933        | 1 1/4            | 8,555        | 1                |
| 3,219        | 2                | 8,840        | 1 1/2            |
| 3,409        | 1 1/2            | 9,125        | 2                |
| 3,791        | 1                | 9,384        | 2 1/2            |
| 4,179        | 2 1/4            | 9,980        | 3                |
| 4,655        | 1                | 10,361       | 3 1/2            |

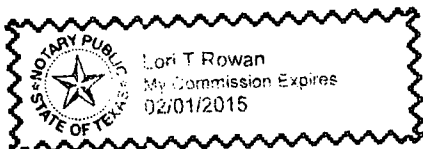
**Patriot Drilling, LLC**

M. Leroy Peterson, Executive Vice-  
President

The foregoing instrument was acknowledged before me on this 15th day of January, 2014 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015

Lori T. Rowan  
Notary Public for Ector Co., Texas





A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021  
Corpus Christi, Texas 78426  
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

HOBBS OCD

APR 09 2014

RECEIVED

January 29, 2014

Regeneration Energy  
P O Box 210  
Artesia, New Mexico 88211

Attn: Drilling Department

Re: **Landreth Federal Com No. 001H**

Please find enclosed a copy of the survey from 0.00' to 10350.00' ran on the above referenced well.

If I can be of any further service please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka  
Operations



Company: Regeneration Energy  
Lease/Well: Landreth Federal Com /No. 001H  
Location: Sec 24 T23S R34E  
Rig Name: Patriot 4  
State/County: New Mexico/Lea  
Latitude: 32.28, Longitude: -103.43  
GRID North is 0.48 Degrees East of True North  
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 22 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: landreth fed com #1h-de\_01.ut

Minimum Curvature Method

Report Date/Time: 1/29/2014 / 14:31

Vaughn Energy Services

West, Texas

Chris Bankson

432-563-5444

Landreth Federal Com No. 001H / API 30-025-41522

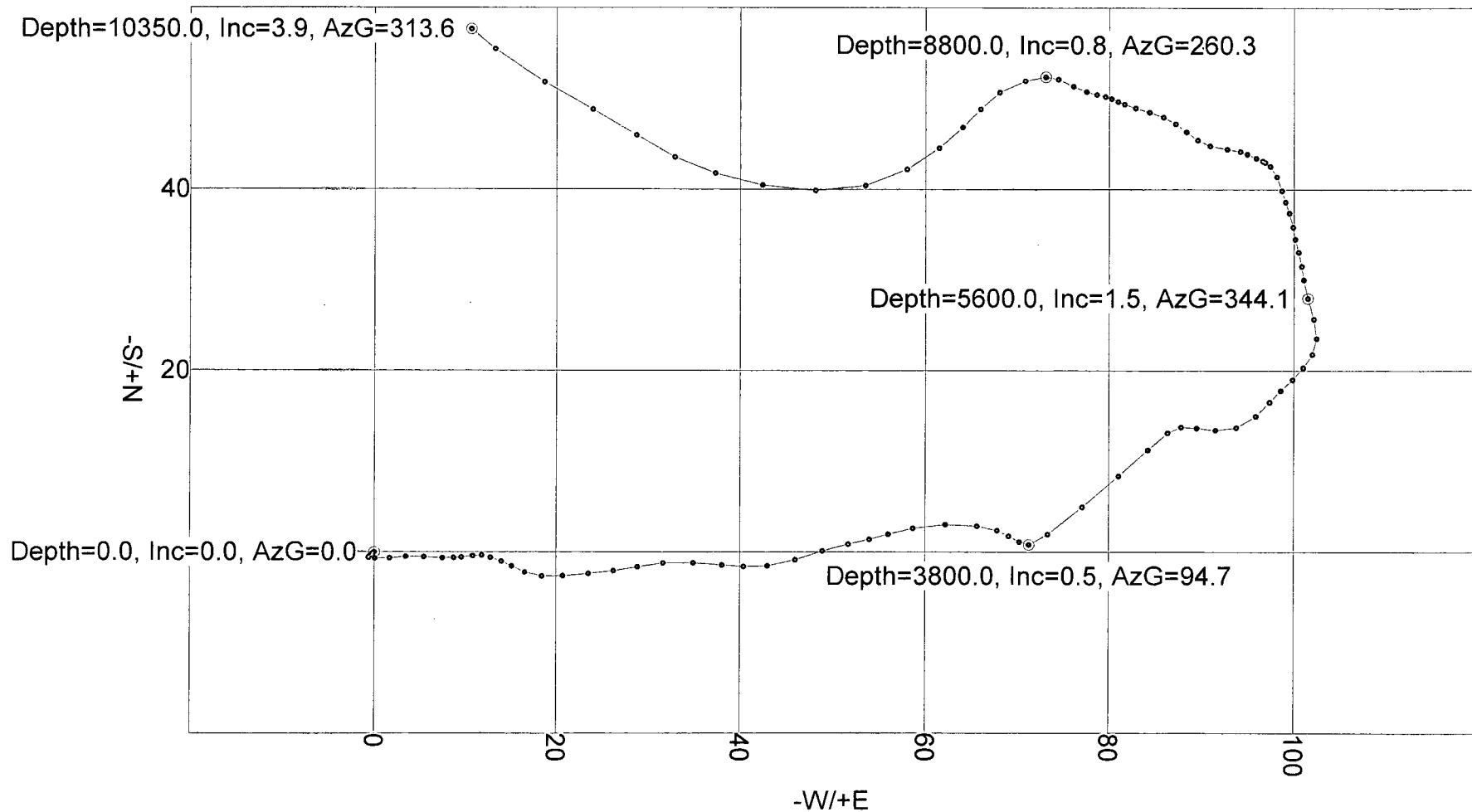
RECEIVED  
APR 09 2014  
HOBBS OCD

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00        | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 100.00                  | 0.25                 | 228.29                    | 100.00    | -0.14       | -0.16       | -0.14                     | 0.22                      | 228.29                      | 0.25                          |
| 200.00                  | 0.25                 | 227.21                    | 200.00    | -0.44       | -0.48       | -0.44                     | 0.65                      | 227.93                      | 0.00                          |
| 300.00                  | 0.05                 | 181.51                    | 300.00    | -0.63       | -0.64       | -0.63                     | 0.90                      | 225.75                      | 0.22                          |
| 400.00                  | 0.82                 | 91.89                     | 399.99    | -0.69       | 0.07        | -0.69                     | 0.70                      | 174.32                      | 0.82                          |
| 500.00                  | 1.04                 | 87.50                     | 499.98    | -0.68       | 1.69        | -0.68                     | 1.82                      | 111.80                      | 0.24                          |
| 600.00                  | 1.00                 | 82.60                     | 599.97    | -0.52       | 3.47        | -0.52                     | 3.51                      | 98.60                       | 0.10                          |
| 700.00                  | 1.29                 | 96.61                     | 699.95    | -0.54       | 5.46        | -0.54                     | 5.48                      | 95.67                       | 0.40                          |
| 800.00                  | 1.05                 | 89.41                     | 799.92    | -0.66       | 7.50        | -0.66                     | 7.53                      | 95.05                       | 0.28                          |
| 900.00                  | 0.41                 | 85.92                     | 899.92    | -0.63       | 8.77        | -0.63                     | 8.80                      | 94.09                       | 0.65                          |
| 1000.00                 | 0.55                 | 86.41                     | 999.91    | -0.57       | 9.61        | -0.57                     | 9.63                      | 93.41                       | 0.15                          |
| 1100.00                 | 0.89                 | 81.72                     | 1099.90   | -0.43       | 10.86       | -0.43                     | 10.87                     | 92.27                       | 0.34                          |
| 1200.00                 | 0.26                 | 97.67                     | 1199.90   | -0.35       | 11.85       | -0.35                     | 11.86                     | 91.69                       | 0.64                          |
| 1300.00                 | 0.89                 | 106.09                    | 1299.89   | -0.59       | 12.83       | -0.59                     | 12.84                     | 92.65                       | 0.63                          |
| 1400.00                 | 0.57                 | 116.15                    | 1399.89   | -1.03       | 14.02       | -1.03                     | 14.06                     | 94.20                       | 0.34                          |
| 1500.00                 | 0.83                 | 115.03                    | 1499.88   | -1.55       | 15.12       | -1.55                     | 15.20                     | 95.87                       | 0.26                          |
| 1600.00                 | 1.04                 | 112.59                    | 1599.86   | -2.21       | 16.62       | -2.21                     | 16.76                     | 97.58                       | 0.22                          |
| 1700.00                 | 1.15                 | 94.74                     | 1699.85   | -2.64       | 18.46       | -2.64                     | 18.64                     | 98.15                       | 0.35                          |
| 1800.00                 | 1.46                 | 85.00                     | 1799.82   | -2.61       | 20.72       | -2.61                     | 20.88                     | 97.19                       | 0.38                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1900.00                 | 1.75                 | 84.86                     | 1899.78   | -2.37       | 23.50       | -2.37                     | 23.62                     | 95.75                       | 0.29                          |
| 2000.00                 | 1.41                 | 81.82                     | 1999.74   | -2.06       | 26.24       | -2.06                     | 26.32                     | 94.48                       | 0.35                          |
| 2100.00                 | 1.58                 | 79.48                     | 2099.71   | -1.63       | 28.82       | -1.63                     | 28.86                     | 93.23                       | 0.18                          |
| 2200.00                 | 1.69                 | 83.33                     | 2199.67   | -1.20       | 31.64       | -1.20                     | 31.66                     | 92.18                       | 0.16                          |
| 2300.00                 | 2.07                 | 95.34                     | 2299.61   | -1.20       | 34.90       | -1.20                     | 34.92                     | 91.97                       | 0.54                          |
| 2400.00                 | 1.55                 | 92.66                     | 2399.56   | -1.43       | 38.05       | -1.43                     | 38.08                     | 92.16                       | 0.52                          |
| 2500.00                 | 1.18                 | 95.56                     | 2499.54   | -1.59       | 40.42       | -1.59                     | 40.46                     | 92.26                       | 0.38                          |
| 2600.00                 | 1.77                 | 83.71                     | 2599.50   | -1.52       | 42.98       | -1.52                     | 43.01                     | 92.03                       | 0.66                          |
| 2700.00                 | 1.75                 | 71.19                     | 2699.46   | -0.86       | 45.96       | -0.86                     | 45.97                     | 91.07                       | 0.38                          |
| 2800.00                 | 1.79                 | 71.82                     | 2799.41   | 0.12        | 48.90       | 0.12                      | 48.90                     | 89.86                       | 0.05                          |
| 2900.00                 | 1.58                 | 78.41                     | 2899.36   | 0.89        | 51.74       | 0.89                      | 51.75                     | 89.02                       | 0.29                          |
| 3000.00                 | 1.11                 | 74.79                     | 2999.34   | 1.42        | 54.03       | 1.42                      | 54.05                     | 88.50                       | 0.48                          |
| 3100.00                 | 1.30                 | 73.42                     | 3099.31   | 2.00        | 56.06       | 2.00                      | 56.09                     | 87.96                       | 0.19                          |
| 3200.00                 | 1.82                 | 78.07                     | 3199.28   | 2.65        | 58.70       | 2.65                      | 58.76                     | 87.42                       | 0.53                          |
| 3300.00                 | 2.21                 | 88.15                     | 3299.22   | 3.04        | 62.18       | 3.04                      | 62.26                     | 87.20                       | 0.53                          |
| 3400.00                 | 1.76                 | 97.78                     | 3399.16   | 2.90        | 65.63       | 2.90                      | 65.70                     | 87.47                       | 0.56                          |
| 3500.00                 | 0.85                 | 111.91                    | 3499.13   | 2.41        | 67.84       | 2.41                      | 67.88                     | 87.96                       | 0.96                          |
| 3600.00                 | 0.78                 | 121.89                    | 3599.12   | 1.77        | 69.11       | 1.77                      | 69.13                     | 88.53                       | 0.16                          |
| 3700.00                 | 0.72                 | 114.90                    | 3699.11   | 1.15        | 70.26       | 1.15                      | 70.27                     | 89.07                       | 0.11                          |
| 3800.00                 | 0.55                 | 94.72                     | 3799.10   | 0.84        | 71.31       | 0.84                      | 71.31                     | 89.32                       | 0.28                          |
| 3900.00                 | 2.26                 | 53.48                     | 3899.07   | 1.97        | 73.37       | 1.97                      | 73.39                     | 88.46                       | 1.88                          |
| 4000.00                 | 3.22                 | 49.54                     | 3998.96   | 4.97        | 77.09       | 4.97                      | 77.25                     | 86.31                       | 0.98                          |
| 4100.00                 | 2.77                 | 48.89                     | 4098.82   | 8.39        | 81.05       | 8.39                      | 81.48                     | 84.09                       | 0.45                          |
| 4200.00                 | 2.14                 | 46.19                     | 4198.73   | 11.27       | 84.22       | 11.27                     | 84.97                     | 82.38                       | 0.64                          |
| 4300.00                 | 1.10                 | 52.59                     | 4298.69   | 13.15       | 86.33       | 13.15                     | 87.33                     | 81.34                       | 1.06                          |
| 4400.00                 | 0.77                 | 84.37                     | 4398.67   | 13.80       | 87.77       | 13.80                     | 88.85                     | 81.07                       | 0.60                          |
| 4500.00                 | 1.17                 | 101.44                    | 4498.66   | 13.66       | 89.44       | 13.66                     | 90.48                     | 81.32                       | 0.49                          |
| 4600.00                 | 1.23                 | 91.44                     | 4598.64   | 13.43       | 91.51       | 13.43                     | 92.49                     | 81.65                       | 0.22                          |
| 4700.00                 | 1.39                 | 75.13                     | 4698.61   | 13.72       | 93.76       | 13.72                     | 94.76                     | 81.68                       | 0.41                          |
| 4800.00                 | 1.54                 | 44.78                     | 4798.58   | 14.98       | 95.88       | 14.98                     | 97.05                     | 81.12                       | 0.78                          |
| 4900.00                 | 0.93                 | 40.76                     | 4898.56   | 16.55       | 97.36       | 16.55                     | 98.76                     | 80.35                       | 0.62                          |
| 5000.00                 | 1.07                 | 46.34                     | 4998.54   | 17.81       | 98.56       | 17.81                     | 100.16                    | 79.76                       | 0.17                          |
| 5100.00                 | 0.95                 | 47.46                     | 5098.52   | 19.01       | 99.84       | 19.01                     | 101.64                    | 79.22                       | 0.12                          |
| 5200.00                 | 1.07                 | 34.91                     | 5198.51   | 20.33       | 100.99      | 20.33                     | 103.01                    | 78.62                       | 0.25                          |
| 5300.00                 | 0.96                 | 33.58                     | 5298.49   | 21.79       | 101.98      | 21.79                     | 104.28                    | 77.94                       | 0.11                          |
| 5400.00                 | 1.22                 | 359.27                    | 5398.48   | 23.55       | 102.43      | 23.55                     | 105.10                    | 77.05                       | 0.69                          |
| 5500.00                 | 1.26                 | 344.96                    | 5498.45   | 25.67       | 102.13      | 25.67                     | 105.31                    | 75.89                       | 0.31                          |
| 5600.00                 | 1.48                 | 344.09                    | 5598.43   | 27.96       | 101.49      | 27.96                     | 105.28                    | 74.60                       | 0.22                          |
| 5700.00                 | 0.95                 | 352.47                    | 5698.40   | 30.02       | 101.03      | 30.02                     | 105.40                    | 73.45                       | 0.56                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 5800.00                 | 0.78                 | 353.10                    | 5798.39   | 31.52       | 100.84      | 31.52                     | 105.65                    | 72.64                       | 0.17                          |
| 5900.00                 | 1.05                 | 342.54                    | 5898.38   | 33.07       | 100.48      | 33.07                     | 105.79                    | 71.79                       | 0.32                          |
| 6000.00                 | 0.66                 | 351.35                    | 5998.37   | 34.51       | 100.12      | 34.51                     | 105.90                    | 70.98                       | 0.42                          |
| 6100.00                 | 0.91                 | 349.72                    | 6098.36   | 35.85       | 99.90       | 35.85                     | 106.13                    | 70.26                       | 0.25                          |
| 6200.00                 | 0.94                 | 340.20                    | 6198.34   | 37.40       | 99.48       | 37.40                     | 106.28                    | 69.39                       | 0.16                          |
| 6300.00                 | 0.55                 | 342.50                    | 6298.34   | 38.63       | 99.06       | 38.63                     | 106.32                    | 68.70                       | 0.39                          |
| 6400.00                 | 0.93                 | 342.29                    | 6398.33   | 39.86       | 98.66       | 39.86                     | 106.41                    | 68.00                       | 0.39                          |
| 6500.00                 | 0.95                 | 338.81                    | 6498.31   | 41.40       | 98.12       | 41.40                     | 106.50                    | 67.12                       | 0.06                          |
| 6600.00                 | 0.64                 | 311.57                    | 6598.30   | 42.54       | 97.40       | 42.54                     | 106.29                    | 66.41                       | 0.48                          |
| 6700.00                 | 0.16                 | 301.49                    | 6698.30   | 42.98       | 96.87       | 42.98                     | 105.98                    | 66.07                       | 0.48                          |
| 6800.00                 | 0.20                 | 292.73                    | 6798.30   | 43.12       | 96.60       | 43.12                     | 105.79                    | 65.94                       | 0.05                          |
| 6900.00                 | 0.72                 | 294.87                    | 6898.30   | 43.45       | 95.87       | 43.45                     | 105.25                    | 65.62                       | 0.53                          |
| 7000.00                 | 0.48                 | 293.62                    | 6998.29   | 43.89       | 94.91       | 43.89                     | 104.57                    | 65.19                       | 0.25                          |
| 7100.00                 | 0.44                 | 287.50                    | 7098.29   | 44.17       | 94.17       | 44.17                     | 104.01                    | 64.87                       | 0.06                          |
| 7200.00                 | 1.22                 | 278.03                    | 7198.28   | 44.43       | 92.75       | 44.43                     | 102.84                    | 64.40                       | 0.79                          |
| 7300.00                 | 0.94                 | 285.16                    | 7298.26   | 44.79       | 90.90       | 44.79                     | 101.33                    | 63.77                       | 0.31                          |
| 7400.00                 | 0.80                 | 306.38                    | 7398.25   | 45.42       | 89.54       | 45.42                     | 100.40                    | 63.10                       | 0.35                          |
| 7500.00                 | 0.95                 | 306.06                    | 7498.24   | 46.32       | 88.31       | 46.32                     | 99.72                     | 62.32                       | 0.15                          |
| 7600.00                 | 0.72                 | 308.61                    | 7598.23   | 47.20       | 87.15       | 47.20                     | 99.11                     | 61.56                       | 0.23                          |
| 7700.00                 | 1.01                 | 292.76                    | 7698.22   | 47.94       | 85.85       | 47.94                     | 98.32                     | 60.82                       | 0.37                          |
| 7800.00                 | 0.81                 | 286.61                    | 7798.20   | 48.48       | 84.36       | 48.48                     | 97.30                     | 60.12                       | 0.22                          |
| 7900.00                 | 0.98                 | 287.56                    | 7898.19   | 48.94       | 82.87       | 48.94                     | 96.24                     | 59.44                       | 0.17                          |
| 8000.00                 | 0.48                 | 291.90                    | 7998.18   | 49.35       | 81.66       | 49.35                     | 95.42                     | 58.85                       | 0.50                          |
| 8100.00                 | 0.39                 | 292.60                    | 8098.18   | 49.64       | 80.95       | 49.64                     | 94.96                     | 58.48                       | 0.09                          |
| 8200.00                 | 0.49                 | 294.96                    | 8198.18   | 49.95       | 80.25       | 49.95                     | 94.53                     | 58.10                       | 0.10                          |
| 8300.00                 | 0.35                 | 281.75                    | 8298.17   | 50.20       | 79.57       | 50.20                     | 94.08                     | 57.75                       | 0.17                          |
| 8400.00                 | 0.74                 | 285.54                    | 8398.17   | 50.43       | 78.65       | 50.43                     | 93.43                     | 57.33                       | 0.39                          |
| 8500.00                 | 0.60                 | 286.18                    | 8498.16   | 50.75       | 77.52       | 50.75                     | 92.66                     | 56.79                       | 0.14                          |
| 8600.00                 | 1.16                 | 294.09                    | 8598.15   | 51.31       | 76.09       | 51.31                     | 91.78                     | 56.01                       | 0.57                          |
| 8700.00                 | 0.93                 | 297.33                    | 8698.13   | 52.10       | 74.45       | 52.10                     | 90.87                     | 55.02                       | 0.24                          |
| 8800.00                 | 0.76                 | 260.25                    | 8798.12   | 52.36       | 73.08       | 52.36                     | 89.90                     | 54.38                       | 0.56                          |
| 8900.00                 | 1.85                 | 257.91                    | 8898.10   | 51.91       | 70.85       | 51.91                     | 87.83                     | 53.77                       | 1.09                          |
| 9000.00                 | 1.71                 | 232.53                    | 8998.05   | 50.66       | 68.08       | 50.66                     | 84.86                     | 53.35                       | 0.79                          |
| 9100.00                 | 1.52                 | 224.89                    | 9098.01   | 48.82       | 65.97       | 48.82                     | 82.06                     | 53.50                       | 0.29                          |
| 9200.00                 | 1.68                 | 224.07                    | 9197.97   | 46.82       | 64.01       | 46.82                     | 79.31                     | 53.82                       | 0.17                          |
| 9300.00                 | 2.23                 | 231.20                    | 9297.91   | 44.55       | 61.47       | 44.55                     | 75.92                     | 54.07                       | 0.59                          |
| 9400.00                 | 2.59                 | 240.04                    | 9397.82   | 42.20       | 58.00       | 42.20                     | 71.73                     | 53.96                       | 0.52                          |
| 9500.00                 | 2.96                 | 255.33                    | 9497.71   | 40.42       | 53.54       | 40.42                     | 67.09                     | 52.95                       | 0.82                          |
| 9600.00                 | 3.37                 | 271.71                    | 9597.56   | 39.85       | 48.11       | 39.85                     | 62.47                     | 50.36                       | 0.99                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 9700.00                 | 3.25                 | 280.78                    | 9697.39   | 40.47       | 42.39       | 40.47                     | 58.61                     | 46.33                       | 0.54                          |
| 9800.00                 | 2.85                 | 288.11                    | 9797.25   | 41.77       | 37.25       | 41.77                     | 55.97                     | 41.73                       | 0.55                          |
| 9900.00                 | 2.61                 | 295.74                    | 9897.14   | 43.53       | 32.84       | 43.53                     | 54.53                     | 37.03                       | 0.44                          |
| 10000.00                | 2.94                 | 303.68                    | 9997.02   | 45.94       | 28.66       | 45.94                     | 54.15                     | 31.96                       | 0.50                          |
| 10100.00                | 3.38                 | 298.66                    | 10096.87  | 48.77       | 23.94       | 48.77                     | 54.33                     | 26.14                       | 0.52                          |
| 10200.00                | 3.57                 | 300.75                    | 10196.68  | 51.78       | 18.67       | 51.78                     | 55.05                     | 19.83                       | 0.23                          |
| 10300.00                | 3.91                 | 306.79                    | 10296.47  | 55.42       | 13.26       | 55.42                     | 56.98                     | 13.46                       | 0.52                          |
| 10350.00                | 3.94                 | 313.59                    | 10346.35  | 57.62       | 10.65       | 57.62                     | 58.60                     | 10.48                       | 0.93                          |





HOBBS OCD

APR 09 2014

RECEIVED

State of New Mexico  
County of Lea

I, Michael K. Baber, certify that: I am employed by Terra Directional Services LLC; that I did on the day(s) of 12/18/13 through 1/13/14 conduct or supervise the taking of a MWD survey from a depth of 10386 feet to a depth 15719 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Terra Directional Services LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Regeneration Energy Corporation for the Landreth Federal Com 1 Well API 30-025-41522 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Terra Directional Services LLC.

Michael K. Baber  
MWD Operations Coordinator

State of Texas  
County of Brewer

Before me, a notary public, on this day personally appeared Michael K. Baber, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.

  
Notary Public's Signature



Customer Name: Regeneration Energy  
 Well Name: Landreth Federal Com #1H  
 API Number: 30-025-41522  
 County / Parish: Lea County, New Mexico

M.W.D. Operator: R. Whitfield  
 Directional Driller: D. Foster  
 Total Magnetic Correction: 6.81  
 Job #: NM-343

Vertical Section: 0.72

Tie In Survey(s) Provided By:

VES

|          | Meas. Depth | Inc.  | Azm.   | T.V.D.   | Ver. Sect. | +N / -S | +E / -W | Dist.  | Angle | DLS   |
|----------|-------------|-------|--------|----------|------------|---------|---------|--------|-------|-------|
| Tie - In |             |       |        |          |            |         |         |        |       |       |
| 0        | 10350.00    | 3.94  | 313.59 | 10346.35 | 57.81      | 57.68   | 10.56   | 0.00   | 0.00  | 0.00  |
| 1        | 10387.00    | 3.90  | 313.10 | 10383.26 | 59.52      | 59.42   | 8.72    | 60.05  | 8.35  | 0.14  |
| 2        | 10482.00    | 3.20  | 340.60 | 10478.09 | 64.19      | 64.13   | 5.48    | 64.36  | 4.89  | 1.91  |
| 3        | 10577.00    | 2.20  | 347.80 | 10572.98 | 68.46      | 68.41   | 4.21    | 68.54  | 3.53  | 1.11  |
| 4        | 10672.00    | 3.80  | 20.70  | 10667.85 | 73.19      | 73.14   | 4.94    | 73.30  | 3.87  | 2.41  |
| 5        | 10768.00    | 4.60  | 9.40   | 10763.60 | 79.99      | 79.91   | 6.70    | 80.19  | 4.79  | 1.20  |
| 6        | 10863.00    | 4.40  | 5.00   | 10858.30 | 87.39      | 87.30   | 7.64    | 87.63  | 5.00  | 0.42  |
| 7        | 10926.00    | 6.50  | 359.30 | 10921.02 | 93.36      | 93.27   | 7.80    | 93.60  | 4.78  | 3.44  |
| 8        | 10958.00    | 9.10  | 357.80 | 10952.72 | 97.70      | 97.61   | 7.68    | 97.91  | 4.50  | 8.15  |
| 9        | 10990.00    | 12.00 | 2.20   | 10984.17 | 103.56     | 103.47  | 7.71    | 103.75 | 4.26  | 9.40  |
| 10       | 11021.00    | 15.20 | 5.30   | 11014.30 | 110.83     | 110.74  | 8.21    | 111.04 | 4.24  | 10.58 |
| 11       | 11053.00    | 19.30 | 6.40   | 11044.86 | 120.28     | 120.17  | 9.19    | 120.52 | 4.37  | 12.85 |
| 12       | 11085.00    | 23.20 | 6.50   | 11074.67 | 131.82     | 131.69  | 10.49   | 132.11 | 4.56  | 12.19 |
| 13       | 11116.00    | 26.90 | 6.70   | 11102.75 | 144.87     | 144.73  | 12.00   | 145.23 | 4.74  | 11.94 |
| 14       | 11148.00    | 30.50 | 7.70   | 11130.82 | 160.14     | 159.97  | 13.94   | 160.58 | 4.98  | 11.35 |
| 15       | 11180.00    | 33.90 | 8.50   | 11157.89 | 177.04     | 176.85  | 16.34   | 177.60 | 5.28  | 10.71 |
| 16       | 11212.00    | 37.40 | 8.80   | 11183.89 | 195.51     | 195.29  | 19.15   | 196.22 | 5.60  | 10.95 |
| 17       | 11243.00    | 40.50 | 9.50   | 11208.00 | 214.79     | 214.52  | 22.25   | 215.67 | 5.92  | 10.10 |
| 18       | 11275.00    | 43.80 | 10.30  | 11231.72 | 235.98     | 235.67  | 25.95   | 237.10 | 6.28  | 10.45 |
| 19       | 11307.00    | 47.10 | 10.60  | 11254.16 | 258.45     | 258.10  | 30.09   | 259.84 | 6.65  | 10.33 |
| 20       | 11338.00    | 50.50 | 11.10  | 11274.58 | 281.41     | 281.00  | 34.48   | 283.11 | 7.00  | 11.03 |
| 21       | 11370.00    | 54.30 | 11.80  | 11294.10 | 306.32     | 305.84  | 39.52   | 308.39 | 7.36  | 12.00 |
| 22       | 11401.00    | 57.80 | 12.20  | 11311.41 | 331.53     | 330.99  | 44.86   | 334.02 | 7.72  | 11.34 |
| 23       | 11433.00    | 60.70 | 12.30  | 11327.77 | 358.47     | 357.86  | 50.70   | 361.44 | 8.06  | 9.07  |
| 24       | 11465.00    | 63.50 | 11.70  | 11342.74 | 386.20     | 385.52  | 56.58   | 389.65 | 8.35  | 8.91  |
| 25       | 11497.00    | 66.30 | 11.40  | 11356.32 | 414.66     | 413.91  | 62.38   | 418.59 | 8.57  | 8.79  |
| 26       | 11528.00    | 69.50 | 11.80  | 11367.98 | 442.87     | 442.04  | 68.15   | 447.27 | 8.76  | 10.39 |
| 27       | 11560.00    | 72.50 | 11.00  | 11378.40 | 472.60     | 471.70  | 74.13   | 477.49 | 8.93  | 9.67  |
| 28       | 11591.00    | 76.20 | 10.80  | 11386.76 | 501.97     | 501.01  | 79.77   | 507.32 | 9.05  | 11.95 |
| 29       | 11623.00    | 79.80 | 10.40  | 11393.41 | 532.80     | 531.77  | 85.53   | 538.60 | 9.14  | 11.32 |
| 30       | 11655.00    | 82.80 | 10.20  | 11398.25 | 563.99     | 562.89  | 91.18   | 570.23 | 9.20  | 9.40  |
| 31       | 11686.00    | 86.00 | 10.10  | 11401.27 | 594.42     | 593.25  | 96.62   | 601.07 | 9.25  | 10.33 |
| 32       | 11718.00    | 88.10 | 9.40   | 11402.92 | 625.98     | 624.75  | 102.03  | 633.02 | 9.28  | 6.92  |
| 33       | 11749.00    | 88.60 | 9.20   | 11403.81 | 656.62     | 655.33  | 107.04  | 664.01 | 9.28  | 1.74  |
| 34       | 11781.00    | 89.90 | 8.20   | 11404.23 | 688.31     | 686.96  | 111.88  | 696.01 | 9.25  | 5.13  |
| 35       | 11813.00    | 90.20 | 8.20   | 11404.20 | 720.03     | 718.63  | 116.44  | 728.00 | 9.20  | 0.94  |
| 36       | 11845.00    | 90.70 | 7.10   | 11403.95 | 751.80     | 750.34  | 120.70  | 759.99 | 9.14  | 3.78  |
| 37       | 11876.00    | 91.20 | 6.20   | 11403.44 | 782.63     | 781.13  | 124.29  | 790.96 | 9.04  | 3.32  |
| 38       | 11908.00    | 91.40 | 5.10   | 11402.71 | 814.50     | 812.96  | 127.44  | 822.89 | 8.91  | 3.49  |
| 39       | 11940.00    | 91.00 | 3.30   | 11402.04 | 846.43     | 844.87  | 129.78  | 854.78 | 8.73  | 5.76  |
| 40       | 11971.00    | 91.20 | 2.80   | 11401.45 | 877.40     | 875.82  | 131.43  | 885.63 | 8.53  | 1.74  |



*[Signature]*

*[Signature]*

|     |          |       |        |          |         |         |        |         |      |      |
|-----|----------|-------|--------|----------|---------|---------|--------|---------|------|------|
| 41  | 12003.00 | 91.50 | 2.70   | 11400.69 | 909.37  | 907.77  | 132.97 | 917.46  | 8.33 | 0.99 |
| 42  | 12035.00 | 90.50 | 2.20   | 11400.13 | 941.35  | 939.74  | 134.34 | 949.29  | 8.14 | 3.49 |
| 43  | 12098.00 | 90.10 | 1.30   | 11399.80 | 1004.34 | 1002.71 | 136.26 | 1011.92 | 7.74 | 1.56 |
| 44  | 12130.00 | 90.00 | 1.20   | 11399.78 | 1036.34 | 1034.70 | 136.96 | 1043.73 | 7.54 | 0.44 |
| 45  | 12193.00 | 89.10 | 360.00 | 11400.27 | 1099.34 | 1097.69 | 137.62 | 1106.29 | 7.15 | 2.38 |
| 46  | 12288.00 | 90.00 | 359.40 | 11401.02 | 1194.32 | 1192.69 | 137.12 | 1200.54 | 6.56 | 1.14 |
| 47  | 12383.00 | 91.30 | 360.00 | 11399.94 | 1289.29 | 1287.68 | 136.62 | 1294.91 | 6.06 | 1.51 |
| 48  | 12478.00 | 91.10 | 359.60 | 11397.95 | 1384.26 | 1382.66 | 136.29 | 1389.36 | 5.63 | 0.47 |
| 49  | 12573.00 | 90.00 | 358.30 | 11397.04 | 1479.21 | 1477.63 | 134.55 | 1483.75 | 5.20 | 1.79 |
| 50  | 12668.00 | 88.90 | 357.30 | 11397.95 | 1574.08 | 1572.56 | 130.90 | 1577.99 | 4.76 | 1.56 |
| 51  | 12763.00 | 88.10 | 356.40 | 11400.44 | 1668.83 | 1667.38 | 125.69 | 1672.11 | 4.31 | 1.27 |
| 52  | 12859.00 | 87.10 | 354.90 | 11404.46 | 1764.36 | 1763.01 | 118.41 | 1766.99 | 3.84 | 1.88 |
| 53  | 12954.00 | 86.40 | 355.20 | 11409.84 | 1858.74 | 1857.51 | 110.23 | 1860.77 | 3.40 | 0.80 |
| 54  | 13049.00 | 87.10 | 357.40 | 11415.23 | 1953.30 | 1952.15 | 104.11 | 1954.92 | 3.05 | 2.43 |
| 55  | 13144.00 | 88.00 | 359.30 | 11419.29 | 2048.13 | 2047.02 | 101.38 | 2049.53 | 2.84 | 2.21 |
| 56  | 13240.00 | 91.40 | 1.80   | 11419.79 | 2144.11 | 2142.99 | 102.30 | 2145.43 | 2.73 | 4.40 |
| 57  | 13335.00 | 92.60 | 1.60   | 11416.48 | 2239.03 | 2237.89 | 105.11 | 2240.36 | 2.69 | 1.28 |
| 58  | 13430.00 | 90.70 | 359.40 | 11413.74 | 2333.98 | 2332.84 | 105.94 | 2335.24 | 2.60 | 3.06 |
| 59  | 13525.00 | 90.50 | 358.80 | 11412.75 | 2428.94 | 2427.82 | 104.45 | 2430.06 | 2.46 | 0.67 |
| 60  | 13620.00 | 91.30 | 357.50 | 11411.26 | 2523.83 | 2522.75 | 101.38 | 2524.79 | 2.30 | 1.61 |
| 61  | 13716.00 | 92.50 | 357.10 | 11408.07 | 2619.60 | 2618.59 | 96.86  | 2620.38 | 2.12 | 1.32 |
| 62  | 13811.00 | 91.50 | 357.10 | 11404.76 | 2714.36 | 2713.41 | 92.06  | 2714.97 | 1.94 | 1.05 |
| 63  | 13906.00 | 90.00 | 357.00 | 11403.51 | 2809.15 | 2808.28 | 87.17  | 2809.63 | 1.78 | 1.58 |
| 64  | 14001.00 | 91.00 | 358.40 | 11402.68 | 2904.01 | 2903.19 | 83.36  | 2904.39 | 1.64 | 1.81 |
| 65  | 14096.00 | 91.00 | 359.00 | 11401.03 | 2998.94 | 2998.15 | 81.20  | 2999.25 | 1.55 | 0.63 |
| 66  | 14191.00 | 90.30 | 359.10 | 11399.95 | 3093.89 | 3093.13 | 79.63  | 3094.16 | 1.47 | 0.74 |
| 67  | 14287.00 | 91.50 | 359.00 | 11398.44 | 3189.84 | 3189.11 | 78.04  | 3190.06 | 1.40 | 1.25 |
| 68  | 14382.00 | 91.50 | 359.00 | 11395.95 | 3284.76 | 3284.06 | 76.38  | 3284.95 | 1.33 | 0.00 |
| 69  | 14477.00 | 89.80 | 358.50 | 11394.88 | 3379.69 | 3379.03 | 74.31  | 3379.84 | 1.26 | 1.87 |
| 70  | 14572.00 | 90.70 | 358.50 | 11394.46 | 3474.62 | 3473.99 | 71.82  | 3474.73 | 1.18 | 0.95 |
| 71  | 14667.00 | 90.70 | 358.90 | 11393.30 | 3569.55 | 3568.96 | 69.67  | 3569.64 | 1.12 | 0.42 |
| 72  | 14762.00 | 89.90 | 359.50 | 11392.80 | 3664.52 | 3663.95 | 68.34  | 3664.59 | 1.07 | 1.05 |
| 73  | 14858.00 | 90.40 | 358.40 | 11392.55 | 3760.47 | 3759.93 | 66.58  | 3760.52 | 1.01 | 1.26 |
| 74  | 14953.00 | 90.00 | 359.00 | 11392.22 | 3855.41 | 3854.90 | 64.43  | 3855.44 | 0.96 | 0.76 |
| 75  | 15048.00 | 89.30 | 0.10   | 11392.80 | 3950.39 | 3949.90 | 63.68  | 3950.41 | 0.92 | 1.37 |
| 76  | 15143.00 | 90.70 | 359.70 | 11392.80 | 4045.37 | 4044.90 | 63.51  | 4045.39 | 0.90 | 1.53 |
| 77  | 15239.00 | 90.00 | 1.20   | 11392.21 | 4141.37 | 4140.89 | 64.27  | 4141.39 | 0.89 | 1.72 |
| 78  | 15332.00 | 91.20 | 1.70   | 11391.24 | 4234.35 | 4233.85 | 66.62  | 4234.37 | 0.90 | 1.40 |
| 79  | 15428.00 | 91.60 | 0.50   | 11388.90 | 4330.32 | 4329.80 | 68.46  | 4330.34 | 0.91 | 1.32 |
| 80  | 15523.00 | 93.10 | 359.80 | 11385.00 | 4425.23 | 4424.72 | 68.71  | 4425.25 | 0.89 | 1.74 |
| 81  | 15618.00 | 94.80 | 359.70 | 11378.46 | 4519.99 | 4519.49 | 68.30  | 4520.00 | 0.87 | 1.79 |
| 82  | 15674.00 | 95.90 | 359.30 | 11373.23 | 4575.73 | 4575.24 | 67.81  | 4575.74 | 0.85 | 2.09 |
| PTB | 15719.00 | 95.90 | 359.30 | 11368.61 | 4620.48 | 4620.00 | 67.27  | 4620.49 | 0.83 | 0.00 |

