

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 88240  
 District II  
 1301 W. Grand Ave., Artesia, NM 88210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

Form C-103  
 June 19, 2008

|                                                                                                                                                                                                                           |  |                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------|
| SUNDRY NOTICES AND REPORTS ON WELLS<br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR, USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)                    |  | WELL API NO.<br>30-005-64329                                                                        |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>                                                                                            |  | 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> |
| 2. Name of Operator<br>Mack Energy Corporation                                                                                                                                                                            |  | 6. State Oil & Gas Lease No.<br>VB-2254                                                             |
| 3. Address of Operator<br>P.O. Box 960 Artesia, NM 88210                                                                                                                                                                  |  | 7. Lease Name or Unit Agreement Name<br>Markham State Com                                           |
| 4. Well Location<br>Unit Letter <u>P</u> <u>330</u> feet from the <u>South</u> line and <u>990</u> feet from the <u>East</u> line<br>Section <u>23</u> Township <u>15S</u> Range <u>28E</u> NMPM County <u>Chaves, NM</u> |  | 8. Well Number<br>1H                                                                                |
| 11. Elevation (Show whether DR, RKB, RT, GR etc.)<br>3574' GR                                                                                                                                                             |  | 9. OGRID Number<br>013837                                                                           |
|                                                                                                                                                                                                                           |  | 10. Pool Name or Wildcat<br>Round Tank; San Andres                                                  |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
 DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIALWORK ☐ ALTERING CASING ☐  
 COMMENCE DRILLING OPNS. ☐ P AND A ☐  
 CASING/CEMENT JOB ☐

OTHER: ☐

OTHER: Name Change/ Drill Horizontal ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Mack Energy Corporation is proposing to change the name of the Markham State 1H location to the Markham State Com 1H. The location is located in the SESE Sec. 23 T15S R28E.

The Markham State Com 1H will be drilled as a horizontal San Andres well. The total depth of this well is 12,163', TVD is 2912'.  
 Casing Program: Surface Drill 17 1/2" hole to 500' run 13 3/8" J-55 48# ST&C, new csg/cmt w/ 100sx RFC + 12% PF53+2%PF1+5ppsPF42+.125ppsPF29, Density 14.4-Yield 1.61, H2O mix 7.357. 400sx Class C+1%PF1, Density 14.8-Yield 1.34, H2O 6.323. C/B/T safety factors 8.719834/4.706714/4.74.  
 Intermediate Drill 12 1/4" hole to 1,500' run 9 5/8" J-55 36# ST&C, new csg/cmt 710sx Class C+1%PF1, Density 14.8-Yield 1.34 H2O mix 6.323. C/B/T safety factors 2.538964/7.266722/7.04.  
 Production Drill 8 3/4" hole to 12,163' run 7" 0-2050' 26# HCP-110 LT&C, C/B/T safety factors 5.04144/3.365671/3.316667. 5 1/2" 2050-12,163' 17# HCP-110 Buttruss, C/B/T safety factors 5.666209/3.5446667/3.5446667. New csg/cmt 400sx Class "C" 4% PF20+4 pps PF45+125pps PF29, Density 13.2-Yield 1.84 H2O mix 9.914. 2428sx PVL+1.3 (BWOW) PF44+5%PF174+.5%PF606+.1%PF153+.4ppsPF44, Density 13-Yield 1.48 H2O mix 7.577.

Spud Date:

Rig Release Date:

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

SIGNATURE Jerry W Sherrell TITLE Regulatory Supervisor DATE 5/13/21

Type or print name Jerry W Sherrell E-mail address: jerrys@mec.com PHONE: (575)748-1288

For State Use Only

APPROVED BY: John Garcia TITLE Petroleum Specialist DATE 5/21/2021

Conditions of Approval (if any):

## District I

1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

## District II

811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

## District III

1000 Rio Brazos 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

|                                                |                                                              |                                                         |
|------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------|
| <sup>1</sup> API Number<br><b>30-005-64329</b> | <sup>2</sup> Pool Code<br><b>52770</b>                       | <sup>3</sup> Pool Name<br><b>Round Task; San Andres</b> |
| <sup>4</sup> Property Code<br><b>324999</b>    | <sup>5</sup> Property Name<br><b>MARKHAM STATE COM</b>       |                                                         |
| <sup>7</sup> OGRID No.<br><b>13837</b>         | <sup>8</sup> Operator Name<br><b>MACK ENERGY CORPORATION</b> | <sup>6</sup> Well Number<br><b>1H</b>                   |
|                                                |                                                              | <sup>9</sup> Elevation<br><b>3574.0</b>                 |

<sup>10</sup> Surface Location

| UL or lot no. | Section   | Township    | Range       | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County        |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|---------------|
| <b>P</b>      | <b>23</b> | <b>15 S</b> | <b>28 E</b> |         | <b>330</b>    | <b>SOUTH</b>     | <b>990</b>    | <b>EAST</b>    | <b>CHAVES</b> |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section   | Township    | Range       | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County        |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|---------------|
| <b>P</b>      | <b>35</b> | <b>15 S</b> | <b>28 E</b> |         | <b>1220</b>   | <b>SOUTH</b>     | <b>990</b>    | <b>EAST</b>    | <b>CHAVES</b> |

|                                             |                               |                                  |                         |
|---------------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br><b>280</b> | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> 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.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>NW CORNER SEC. 23<br/>LAT. = 33.0089863°N<br/>LONG. = 104.1111525°W<br/>NMSP EAST (FT)<br/>N = 730845.84<br/>E = 609446.16</p> <p>W/4 CORNER SEC. 23<br/>LAT. = 33.0016535°N<br/>LONG. = 104.1111680°W<br/>NMSP EAST (FT)<br/>N = 728209.99<br/>E = 609446.99</p> <p>SW CORNER SEC. 23<br/>LAT. = 32.9944104°N<br/>LONG. = 104.1111759°W<br/>NMSP EAST (FT)<br/>N = 725574.73<br/>E = 609450.13</p> <p>W/4 CORNER SEC. 26<br/>LAT. = 32.9871538°N<br/>LONG. = 104.1110964°W<br/>NMSP EAST (FT)<br/>N = 722834.64<br/>E = 609480.07</p> <p>SW CORNER SEC. 26<br/>LAT. = 32.9789866°N<br/>LONG. = 104.1112325°W<br/>NMSP EAST (FT)<br/>N = 720294.20<br/>E = 609443.93</p> <p>W/4 CORNER SEC. 35<br/>LAT. = 32.9726351°N<br/>LONG. = 104.1111358°W<br/>NMSP EAST (FT)<br/>N = 717652.34<br/>E = 609479.13</p> <p>SW CORNER SEC. 35<br/>LAT. = 32.9653743°N<br/>LONG. = 104.1110202°W<br/>NMSP EAST (FT)<br/>N = 715010.75<br/>E = 609519.63</p> |  | <p>SE CORNER SEC. 23<br/>LAT. = 33.0089863°N<br/>LONG. = 104.1025336°W<br/>NMSP EAST (FT)<br/>N = 730832.92<br/>E = 612088.29</p> <p>MARKHAM STATE 1H<br/>ELEV. = 3574.0'<br/>LAT. = 32.9951629°N (NAD83)<br/>LONG. = 104.0971144°W<br/>NMSP EAST (FT)<br/>N = 725857.90<br/>E = 613768.73</p> <p>S/4 CORNER SEC. 23<br/>LAT. = 32.9942540°N<br/>LONG. = 104.1023574°W SHL<br/>NMSP EAST (FT)<br/>N = 725523.66<br/>E = 612153.96</p> <p>SE CORNER SEC. 23<br/>LAT. = 32.9942570°N<br/>LONG. = 104.0939088°W<br/>NMSP EAST (FT)<br/>N = 728174.46<br/>E = 614738.27</p> <p>SE CORNER SEC. 26<br/>LAT. = 32.9842570°N<br/>LONG. = 104.0939088°W<br/>NMSP EAST (FT)<br/>N = 725530.56<br/>E = 614752.22</p> <p>SE CORNER SEC. 26<br/>LAT. = 32.9869876°N<br/>LONG. = 104.0936669°W<br/>NMSP EAST (FT)<br/>N = 722855.75<br/>E = 614783.15</p> <p>SE CORNER SEC. 26<br/>LAT. = 32.9797188°N<br/>LONG. = 104.0938384°W<br/>NMSP EAST (FT)<br/>N = 720240.47<br/>E = 614777.92</p> <p>E/4 CORNER SEC. 35<br/>LAT. = 32.9725723°N<br/>LONG. = 104.0936200°W<br/>NMSP EAST (FT)<br/>N = 717641.13<br/>E = 614789.47</p> <p>SE CORNER SEC. 35<br/>LAT. = 32.9654174°N<br/>LONG. = 104.0937948°W<br/>NMSP EAST (FT)<br/>N = 715038.00<br/>E = 614803.13</p> |  |
| <p>NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). DISTED NEW MEXICO STATE PLAT C-102 COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLAT C-102 COORDINATES MODIFIED TO THE SURFACE. VERTICAL DATUM NAVD83.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>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 unleased 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.</p> <p><i>Jerry W. Sherrell</i> 5/13/2021<br/>Signature Date</p> <p>Jerry W. Sherrell<br/>Printed Name</p> <p>jerry@semec.com<br/>E-mail Address</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| <p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>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.</p> <p>MAY 10, 2021<br/>Date of Survey</p> <p><i>ALIMON F. JARAMILLO</i><br/>Signature and Seal of Professional Surveyor</p> <p>Certificate Number: <b>12797</b><br/>Professional Surveyor License No. 2061C</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <p>NE CORNER SEC. 23<br/>LAT. = 33.0089863°N<br/>LONG. = 104.0938215°W<br/>NMSP EAST (FT)<br/>N = 730819.17<br/>E = 614728.35</p> <p>E/4 CORNER SEC. 23<br/>LAT. = 33.0015240°N<br/>LONG. = 104.0939088°W<br/>NMSP EAST (FT)<br/>N = 728174.46<br/>E = 614738.27</p> <p>SE CORNER SEC. 23<br/>LAT. = 32.9942570°N<br/>LONG. = 104.0939088°W<br/>NMSP EAST (FT)<br/>N = 728174.46<br/>E = 614738.27</p> <p>SE CORNER SEC. 26<br/>LAT. = 32.9869876°N<br/>LONG. = 104.0936669°W<br/>NMSP EAST (FT)<br/>N = 722855.75<br/>E = 614783.15</p> <p>SE CORNER SEC. 26<br/>LAT. = 32.9797188°N<br/>LONG. = 104.0938384°W<br/>NMSP EAST (FT)<br/>N = 720240.47<br/>E = 614777.92</p> <p>E/4 CORNER SEC. 35<br/>LAT. = 32.9725723°N<br/>LONG. = 104.0936200°W<br/>NMSP EAST (FT)<br/>N = 717641.13<br/>E = 614789.47</p> <p>SE CORNER SEC. 35<br/>LAT. = 32.9654174°N<br/>LONG. = 104.0937948°W<br/>NMSP EAST (FT)<br/>N = 715038.00<br/>E = 614803.13</p>                                                                                                                                                                                                                                                                                                    |  |

Intent ☐ As Drilled ☐

API #

|                                |                                 |             |
|--------------------------------|---------------------------------|-------------|
| Operator Name:                 | Property Name:                  | Well Number |
| <b>MACK ENERGY CORPORATION</b> | <b>MARKHAM STATE</b> <i>COM</i> | <b>1H</b>   |

Kick Off Point (KOP)

|                               |                      |                        |                     |     |                                 |                          |                    |                         |                         |
|-------------------------------|----------------------|------------------------|---------------------|-----|---------------------------------|--------------------------|--------------------|-------------------------|-------------------------|
| UL<br><b>P</b>                | Section<br><b>23</b> | Township<br><b>15S</b> | Range<br><b>28E</b> | Lot | Feet<br><b>330</b>              | From N/S<br><b>SOUTH</b> | Feet<br><b>990</b> | From E/W<br><b>EAST</b> | County<br><b>CHAVES</b> |
| Latitude<br><b>32.9951629</b> |                      |                        |                     |     | Longitude<br><b>104.0971144</b> |                          |                    | NAD<br><b>83</b>        |                         |

First Take Point (FTP)

|                               |                      |                        |                     |     |                                 |                          |                    |                         |                         |
|-------------------------------|----------------------|------------------------|---------------------|-----|---------------------------------|--------------------------|--------------------|-------------------------|-------------------------|
| UL<br><b>A</b>                | Section<br><b>26</b> | Township<br><b>15S</b> | Range<br><b>28E</b> | Lot | Feet<br><b>100</b>              | From N/S<br><b>NORTH</b> | Feet<br><b>990</b> | From E/W<br><b>EAST</b> | County<br><b>CHAVES</b> |
| Latitude<br><b>32.9939812</b> |                      |                        |                     |     | Longitude<br><b>104.0971105</b> |                          |                    | NAD<br><b>83</b>        |                         |

Last Take Point (LTP)

|                               |                      |                        |                     |     |                                 |                          |                    |                         |                         |
|-------------------------------|----------------------|------------------------|---------------------|-----|---------------------------------|--------------------------|--------------------|-------------------------|-------------------------|
| UL<br><b>I</b>                | Section<br><b>35</b> | Township<br><b>15S</b> | Range<br><b>28E</b> | Lot | Feet<br><b>1320</b>             | From N/S<br><b>SOUTH</b> | Feet<br><b>990</b> | From E/W<br><b>EAST</b> | County<br><b>CHAVES</b> |
| Latitude<br><b>32.9690333</b> |                      |                        |                     |     | Longitude<br><b>104.0970348</b> |                          |                    | NAD<br><b>83</b>        |                         |

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

|                |                |             |
|----------------|----------------|-------------|
| Operator Name: | Property Name: | Well Number |
|                |                |             |

KZ 06/29/2018

## Markham State Com 1H, Plan 1

|                    |                                                                                 |                     |                 |                                  |                     |
|--------------------|---------------------------------------------------------------------------------|---------------------|-----------------|----------------------------------|---------------------|
| <b>Operator</b>    | Mack Energy Corp                                                                | <b>Units</b>        | feet, °/100ft   | 15:12 Thursday, May 06, 2021     | Page 1 of 6         |
| <b>Field</b>       | Round Tank                                                                      | <b>County</b>       | Chaves          | <b>Vertical Section Azimuth</b>  | 179.72              |
| <b>Well Name</b>   | Markham State Com 1H                                                            | <b>State</b>        | New Mexico      | <b>Survey Calculation Method</b> | Minimum Curvature   |
| <b>Plan</b>        | 1                                                                               | <b>Country</b>      | USA             | <b>Database</b>                  | Access              |
| <b>Location</b>    | SL: 330 FSL & 990 FEL Sec 23-T15S-R28E BHL: 1<br>FSL & 990 FEL Sec 26-T15S-R28E |                     | <b>Map Zone</b> | UTM                              | <b>Lat Long Ref</b> |
| <b>Site</b>        |                                                                                 | <b>Surface X</b>    | 1917315.4       | <b>Surface Long</b>              |                     |
| <b>Slot Name</b>   |                                                                                 | <b>Surface Y</b>    | 11978036.2      | <b>Surface Lat</b>               |                     |
| <b>Well Number</b> |                                                                                 | <b>Surface Z</b>    | 3590            | <b>Global Z Ref</b>              | Mean Sea Level      |
| <b>Project</b>     |                                                                                 | <b>Ground Level</b> | 3574            | <b>Local North Ref</b>           | Grid                |

## DIRECTIONAL WELL PLAN

| MD*                                     | INC*  | AZI*  | TVD*    | N*      | E*   | DLS*    | V. S.* | MapE*      | MapN*       | SysTVD* |
|-----------------------------------------|-------|-------|---------|---------|------|---------|--------|------------|-------------|---------|
| ft                                      | deg   | deg   | ft      | ft      | ft   | °/100ft | ft     | ft         | ft          | ft      |
| *** TIE (at MD = 2007.00)               |       |       |         |         |      |         |        |            |             |         |
| 2007.00                                 | 0.00  | 0.0   | 2007.00 | 0.00    | 0.00 |         | 0.00   | 1917315.40 | 11978036.20 | 1583.00 |
| 2050.00                                 | 0.00  | 0.0   | 2050.00 | 0.00    | 0.00 | 0.00    | 0.00   | 1917315.40 | 11978036.20 | 1540.00 |
| 2100.00                                 | 0.00  | 0.0   | 2100.00 | 0.00    | 0.00 | 0.00    | 0.00   | 1917315.40 | 11978036.20 | 1490.00 |
| *** KOP 8 DEGREES (at MD = 2107.00)     |       |       |         |         |      |         |        |            |             |         |
| 2107.00                                 | 0.00  | 0.0   | 2107.00 | 0.00    | 0.00 | 0.00    | 0.00   | 1917315.40 | 11978036.20 | 1483.00 |
| 2150.00                                 | 3.44  | 179.7 | 2149.97 | -1.29   | 0.01 | 8.00    | 1.29   | 1917315.41 | 11978034.91 | 1440.03 |
| 2200.00                                 | 7.44  | 179.7 | 2199.74 | -6.03   | 0.03 | 8.00    | 6.03   | 1917315.43 | 11978030.17 | 1390.26 |
| 2250.00                                 | 11.44 | 179.7 | 2249.05 | -14.23  | 0.07 | 8.00    | 14.23  | 1917315.47 | 11978021.97 | 1340.95 |
| 2300.00                                 | 15.44 | 179.7 | 2297.67 | -25.85  | 0.13 | 8.00    | 25.85  | 1917315.53 | 11978010.35 | 1292.33 |
| 2350.00                                 | 19.44 | 179.7 | 2345.36 | -40.83  | 0.20 | 8.00    | 40.83  | 1917315.60 | 11977995.37 | 1244.64 |
| 2400.00                                 | 23.44 | 179.7 | 2391.90 | -59.10  | 0.29 | 8.00    | 59.10  | 1917315.69 | 11977977.10 | 1198.11 |
| 2450.00                                 | 27.44 | 179.7 | 2437.04 | -80.58  | 0.39 | 8.00    | 80.58  | 1917315.79 | 11977955.62 | 1152.96 |
| 2500.00                                 | 31.44 | 179.7 | 2480.57 | -105.15 | 0.51 | 8.00    | 105.15 | 1917315.91 | 11977931.05 | 1109.43 |
| 2550.00                                 | 35.44 | 179.7 | 2522.29 | -132.69 | 0.65 | 8.00    | 132.69 | 1917316.05 | 11977903.51 | 1067.71 |
| 2600.00                                 | 39.44 | 179.7 | 2561.98 | -163.08 | 0.80 | 8.00    | 163.09 | 1917316.20 | 11977873.12 | 1028.02 |
| 2650.00                                 | 43.44 | 179.7 | 2599.45 | -196.17 | 0.96 | 8.00    | 196.17 | 1917316.36 | 11977840.03 | 990.55  |
| 2700.00                                 | 47.44 | 179.7 | 2634.53 | -231.79 | 1.13 | 8.00    | 231.79 | 1917316.53 | 11977804.41 | 955.47  |
| 2750.00                                 | 51.44 | 179.7 | 2667.03 | -269.76 | 1.32 | 8.00    | 269.77 | 1917316.72 | 11977766.44 | 922.97  |
| *** 55 DEGREE TANGENT (at MD = 2794.50) |       |       |         |         |      |         |        |            |             |         |
| 2794.50                                 | 55.00 | 179.7 | 2693.67 | -305.40 | 1.49 | 8.00    | 305.40 | 1917316.89 | 11977730.80 | 896.33  |
| 2800.00                                 | 55.00 | 179.7 | 2696.83 | -309.91 | 1.51 | 0.00    | 309.91 | 1917316.91 | 11977726.30 | 893.17  |
| 2850.00                                 | 55.00 | 179.7 | 2725.51 | -350.86 | 1.71 | 0.00    | 350.87 | 1917317.11 | 11977685.34 | 864.49  |
| 2900.00                                 | 55.00 | 179.7 | 2754.19 | -391.82 | 1.91 | 0.00    | 391.82 | 1917317.31 | 11977644.38 | 835.81  |
| 2950.00                                 | 55.00 | 179.7 | 2782.87 | -432.78 | 2.12 | 0.00    | 432.78 | 1917317.52 | 11977603.42 | 807.13  |
| *** 10 DEGREE BUILD (at MD = 2994.50)   |       |       |         |         |      |         |        |            |             |         |
| 2994.50                                 | 55.00 | 179.7 | 2808.39 | -469.23 | 2.29 | 0.00    | 469.23 | 1917317.69 | 11977566.97 | 781.61  |
| 3000.00                                 | 55.55 | 179.7 | 2811.52 | -473.75 | 2.32 | 10.00   | 473.75 | 1917317.72 | 11977562.45 | 778.48  |
| 3050.00                                 | 60.55 | 179.7 | 2837.97 | -516.16 | 2.52 | 10.00   | 516.17 | 1917317.92 | 11977520.04 | 752.03  |
| 3100.00                                 | 65.55 | 179.7 | 2860.63 | -560.72 | 2.74 | 10.00   | 560.72 | 1917318.14 | 11977475.48 | 729.37  |
| 3150.00                                 | 70.55 | 179.7 | 2879.31 | -607.08 | 2.97 | 10.00   | 607.08 | 1917318.37 | 11977429.12 | 710.69  |
| 3200.00                                 | 75.55 | 179.7 | 2893.88 | -654.89 | 3.20 | 10.00   | 654.90 | 1917318.60 | 11977381.31 | 696.12  |
| 3250.00                                 | 80.55 | 179.7 | 2904.23 | -703.79 | 3.44 | 10.00   | 703.80 | 1917318.84 | 11977332.41 | 685.77  |
| 3300.00                                 | 85.55 | 179.7 | 2910.28 | -753.40 | 3.68 | 10.00   | 753.41 | 1917319.08 | 11977282.80 | 679.72  |
| *** LANDING POINT (at MD = 3344.50)     |       |       |         |         |      |         |        |            |             |         |
| 3344.50                                 | 90.00 | 179.7 | 2912.01 | -797.86 | 3.90 | 10.00   | 797.87 | 1917319.30 | 11977238.34 | 677.99  |
| 3350.00                                 | 90.00 | 179.7 | 2912.01 | -803.36 | 3.93 | 0.00    | 803.37 | 1917319.33 | 11977232.84 | 677.99  |
| 3400.00                                 | 90.00 | 179.7 | 2912.01 | -853.36 | 4.17 | 0.00    | 853.37 | 1917319.57 | 11977182.84 | 677.99  |
| 3450.00                                 | 90.00 | 179.7 | 2912.01 | -903.36 | 4.41 | 0.00    | 903.37 | 1917319.81 | 11977132.84 | 677.99  |

## Markham State Com 1H, Plan 1

|                                       |                            |                                                    |
|---------------------------------------|----------------------------|----------------------------------------------------|
| <b>Operator</b> Mack Energy Corp      | <b>Units</b> feet, °/100ft | 15:12 Thursday, May 06, 2021 Page 2 of 6           |
| <b>Field</b> Round Tank               | <b>County</b> Chaves       | <b>Vertical Section Azimuth</b> 179.72             |
| <b>Well Name</b> Markham State Com 1H | <b>State</b> New Mexico    | <b>Survey Calculation Method</b> Minimum Curvature |
| <b>Plan</b> 1                         | <b>Country</b> USA         | <b>Database</b> Access                             |

|                                                                                                 |                             |                                    |
|-------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------|
| <b>Location</b> SL: 330 FSL & 990 FEL Sec 23-T15S-R28E BHL: 1<br>FSL & 990 FEL Sec 26-T15S-R28E | <b>Map Zone</b> UTM         | <b>Lat Long Ref</b>                |
| <b>Site</b>                                                                                     | <b>Surface X</b> 1917315.4  | <b>Surface Long</b>                |
| <b>Slot Name</b>                                                                                | <b>Surface Y</b> 11978036.2 | <b>Surface Lat</b>                 |
| <b>Well Number</b>                                                                              | <b>Surface Z</b> 3590       | <b>Global Z Ref</b> Mean Sea Level |
| <b>Project</b>                                                                                  | <b>Ground Level</b> 3574    | <b>Local North Ref</b> Grid        |

## DIRECTIONAL WELL PLAN

| MD*     | INC*  | AZI*  | TVD*    | N*       | E*    | DLS*    | V. S.*  | MapE*      | MapN*       | SysTVD* |
|---------|-------|-------|---------|----------|-------|---------|---------|------------|-------------|---------|
| ft      | deg   | deg   | ft      | ft       | ft    | °/100ft | ft      | ft         | ft          | ft      |
| 3500.00 | 90.00 | 179.7 | 2912.01 | -953.36  | 4.66  | 0.00    | 953.37  | 1917320.06 | 11977082.84 | 677.99  |
| 3550.00 | 90.00 | 179.7 | 2912.01 | -1003.36 | 4.90  | 0.00    | 1003.37 | 1917320.30 | 11977032.84 | 677.99  |
| 3600.00 | 90.00 | 179.7 | 2912.01 | -1053.36 | 5.15  | 0.00    | 1053.37 | 1917320.55 | 11976982.84 | 677.99  |
| 3650.00 | 90.00 | 179.7 | 2912.01 | -1103.36 | 5.39  | 0.00    | 1103.37 | 1917320.79 | 11976932.84 | 677.99  |
| 3700.00 | 90.00 | 179.7 | 2912.01 | -1153.36 | 5.64  | 0.00    | 1153.37 | 1917321.04 | 11976882.84 | 677.99  |
| 3750.00 | 90.00 | 179.7 | 2912.01 | -1203.35 | 5.88  | 0.00    | 1203.37 | 1917321.28 | 11976832.85 | 677.99  |
| 3800.00 | 90.00 | 179.7 | 2912.01 | -1253.35 | 6.13  | 0.00    | 1253.37 | 1917321.53 | 11976782.85 | 677.99  |
| 3850.00 | 90.00 | 179.7 | 2912.01 | -1303.35 | 6.37  | 0.00    | 1303.37 | 1917321.77 | 11976732.85 | 677.99  |
| 3900.00 | 90.00 | 179.7 | 2912.01 | -1353.35 | 6.61  | 0.00    | 1353.37 | 1917322.01 | 11976682.85 | 677.99  |
| 3950.00 | 90.00 | 179.7 | 2912.01 | -1403.35 | 6.86  | 0.00    | 1403.37 | 1917322.26 | 11976632.85 | 677.99  |
| 4000.00 | 90.00 | 179.7 | 2912.01 | -1453.35 | 7.10  | 0.00    | 1453.37 | 1917322.50 | 11976582.85 | 677.99  |
| 4050.00 | 90.00 | 179.7 | 2912.01 | -1503.35 | 7.35  | 0.00    | 1503.37 | 1917322.75 | 11976532.85 | 677.99  |
| 4100.00 | 90.00 | 179.7 | 2912.01 | -1553.35 | 7.59  | 0.00    | 1553.37 | 1917322.99 | 11976482.85 | 677.99  |
| 4150.00 | 90.00 | 179.7 | 2912.01 | -1603.35 | 7.84  | 0.00    | 1603.37 | 1917323.24 | 11976432.85 | 677.99  |
| 4200.00 | 90.00 | 179.7 | 2912.01 | -1653.35 | 8.08  | 0.00    | 1653.37 | 1917323.48 | 11976382.85 | 677.99  |
| 4250.00 | 90.00 | 179.7 | 2912.01 | -1703.35 | 8.32  | 0.00    | 1703.37 | 1917323.72 | 11976332.85 | 677.99  |
| 4300.00 | 90.00 | 179.7 | 2912.01 | -1753.35 | 8.57  | 0.00    | 1753.37 | 1917323.97 | 11976282.85 | 677.99  |
| 4350.00 | 90.00 | 179.7 | 2912.01 | -1803.35 | 8.81  | 0.00    | 1803.37 | 1917324.21 | 11976232.85 | 677.99  |
| 4400.00 | 90.00 | 179.7 | 2912.01 | -1853.35 | 9.06  | 0.00    | 1853.37 | 1917324.46 | 11976182.85 | 677.99  |
| 4450.00 | 90.00 | 179.7 | 2912.01 | -1903.35 | 9.30  | 0.00    | 1903.37 | 1917324.70 | 11976132.85 | 677.99  |
| 4500.00 | 90.00 | 179.7 | 2912.01 | -1953.35 | 9.55  | 0.00    | 1953.37 | 1917324.95 | 11976082.85 | 677.99  |
| 4550.00 | 90.00 | 179.7 | 2912.01 | -2003.35 | 9.79  | 0.00    | 2003.37 | 1917325.19 | 11976032.86 | 677.99  |
| 4600.00 | 90.00 | 179.7 | 2912.01 | -2053.34 | 10.03 | 0.00    | 2053.37 | 1917325.43 | 11975982.86 | 677.99  |
| 4650.00 | 90.00 | 179.7 | 2912.01 | -2103.34 | 10.28 | 0.00    | 2103.37 | 1917325.68 | 11975932.86 | 677.99  |
| 4700.00 | 90.00 | 179.7 | 2912.01 | -2153.34 | 10.52 | 0.00    | 2153.37 | 1917325.92 | 11975882.86 | 677.99  |
| 4750.00 | 90.00 | 179.7 | 2912.01 | -2203.34 | 10.77 | 0.00    | 2203.37 | 1917326.17 | 11975832.86 | 677.99  |
| 4800.00 | 90.00 | 179.7 | 2912.01 | -2253.34 | 11.01 | 0.00    | 2253.37 | 1917326.41 | 11975782.86 | 677.99  |
| 4850.00 | 90.00 | 179.7 | 2912.01 | -2303.34 | 11.26 | 0.00    | 2303.37 | 1917326.66 | 11975732.86 | 677.99  |
| 4900.00 | 90.00 | 179.7 | 2912.01 | -2353.34 | 11.50 | 0.00    | 2353.37 | 1917326.90 | 11975682.86 | 677.99  |
| 4950.00 | 90.00 | 179.7 | 2912.01 | -2403.34 | 11.75 | 0.00    | 2403.37 | 1917327.15 | 11975632.86 | 677.99  |
| 5000.00 | 90.00 | 179.7 | 2912.01 | -2453.34 | 11.99 | 0.00    | 2453.37 | 1917327.39 | 11975582.86 | 677.99  |
| 5050.00 | 90.00 | 179.7 | 2912.01 | -2503.34 | 12.23 | 0.00    | 2503.37 | 1917327.63 | 11975532.86 | 677.99  |
| 5100.00 | 90.00 | 179.7 | 2912.01 | -2553.34 | 12.48 | 0.00    | 2553.37 | 1917327.88 | 11975482.86 | 677.99  |
| 5150.00 | 90.00 | 179.7 | 2912.01 | -2603.34 | 12.72 | 0.00    | 2603.37 | 1917328.12 | 11975432.86 | 677.99  |
| 5200.00 | 90.00 | 179.7 | 2912.01 | -2653.34 | 12.97 | 0.00    | 2653.37 | 1917328.37 | 11975382.86 | 677.99  |
| 5250.00 | 90.00 | 179.7 | 2912.01 | -2703.34 | 13.21 | 0.00    | 2703.37 | 1917328.61 | 11975332.86 | 677.99  |
| 5300.00 | 90.00 | 179.7 | 2912.01 | -2753.34 | 13.46 | 0.00    | 2753.37 | 1917328.86 | 11975282.86 | 677.99  |

## Markham State Com 1H, Plan 1

|                    |                                                                                 |                |               |                                  |                   |
|--------------------|---------------------------------------------------------------------------------|----------------|---------------|----------------------------------|-------------------|
| <b>Operator</b>    | Mack Energy Corp                                                                | <b>Units</b>   | feet, %/100ft | 15:12 Thursday, May 06, 2021     | Page 3 of 6       |
| <b>Field</b>       | Round Tank                                                                      | <b>County</b>  | Chaves        | <b>Vertical Section Azimuth</b>  | 179.72            |
| <b>Well Name</b>   | Markham State Com 1H                                                            | <b>State</b>   | New Mexico    | <b>Survey Calculation Method</b> | Minimum Curvature |
| <b>Plan</b>        | 1                                                                               | <b>Country</b> | USA           | <b>Database</b>                  | Access            |
| <b>Location</b>    | SL: 330 FSL & 990 FEL Sec 23-T15S-R28E BHL: 1<br>FSL & 990 FEL Sec 26-T15S-R28E |                |               | <b>Map Zone</b>                  | UTM               |
| <b>Site</b>        |                                                                                 |                |               | <b>Surface X</b>                 | 1917315.4         |
| <b>Slot Name</b>   |                                                                                 |                |               | <b>Surface Y</b>                 | 11978036.2        |
| <b>Well Number</b> |                                                                                 |                |               | <b>Surface Z</b>                 | 3590              |
| <b>Project</b>     |                                                                                 |                |               | <b>Ground Level</b>              | 3574              |
|                    |                                                                                 |                |               | <b>Surface Long</b>              |                   |
|                    |                                                                                 |                |               | <b>Surface Lat</b>               |                   |
|                    |                                                                                 |                |               | <b>Global Z Ref</b>              | Mean Sea Level    |
|                    |                                                                                 |                |               | <b>Local North Ref</b>           | Grid              |

## DIRECTIONAL WELL PLAN

| MD*     | INC*  | AZI*  | TVD*    | N*       | E*    | DLS*    | V. S.*  | MapE*      | MapN*       | SysTVD* |
|---------|-------|-------|---------|----------|-------|---------|---------|------------|-------------|---------|
| ft      | deg   | deg   | ft      | ft       | ft    | %/100ft | ft      | ft         | ft          | ft      |
| 5350.00 | 90.00 | 179.7 | 2912.01 | -2803.34 | 13.70 | 0.00    | 2803.37 | 1917329.10 | 11975232.86 | 677.99  |
| 5400.00 | 90.00 | 179.7 | 2912.01 | -2853.33 | 13.94 | 0.00    | 2853.37 | 1917329.34 | 11975182.87 | 677.99  |
| 5450.00 | 90.00 | 179.7 | 2912.01 | -2903.33 | 14.19 | 0.00    | 2903.37 | 1917329.59 | 11975132.87 | 677.99  |
| 5500.00 | 90.00 | 179.7 | 2912.01 | -2953.33 | 14.43 | 0.00    | 2953.37 | 1917329.83 | 11975082.87 | 677.99  |
| 5550.00 | 90.00 | 179.7 | 2912.01 | -3003.33 | 14.68 | 0.00    | 3003.37 | 1917330.08 | 11975032.87 | 677.99  |
| 5600.00 | 90.00 | 179.7 | 2912.01 | -3053.33 | 14.92 | 0.00    | 3053.37 | 1917330.32 | 11974982.87 | 677.99  |
| 5650.00 | 90.00 | 179.7 | 2912.01 | -3103.33 | 15.17 | 0.00    | 3103.37 | 1917330.57 | 11974932.87 | 677.99  |
| 5700.00 | 90.00 | 179.7 | 2912.01 | -3153.33 | 15.41 | 0.00    | 3153.37 | 1917330.81 | 11974882.87 | 677.99  |
| 5750.00 | 90.00 | 179.7 | 2912.01 | -3203.33 | 15.65 | 0.00    | 3203.37 | 1917331.05 | 11974832.87 | 677.99  |
| 5800.00 | 90.00 | 179.7 | 2912.01 | -3253.33 | 15.90 | 0.00    | 3253.37 | 1917331.30 | 11974782.87 | 677.99  |
| 5850.00 | 90.00 | 179.7 | 2912.01 | -3303.33 | 16.14 | 0.00    | 3303.37 | 1917331.54 | 11974732.87 | 677.99  |
| 5900.00 | 90.00 | 179.7 | 2912.01 | -3353.33 | 16.39 | 0.00    | 3353.37 | 1917331.79 | 11974682.87 | 677.99  |
| 5950.00 | 90.00 | 179.7 | 2912.01 | -3403.33 | 16.63 | 0.00    | 3403.37 | 1917332.03 | 11974632.87 | 677.99  |
| 6000.00 | 90.00 | 179.7 | 2912.01 | -3453.33 | 16.88 | 0.00    | 3453.37 | 1917332.28 | 11974582.87 | 677.99  |
| 6050.00 | 90.00 | 179.7 | 2912.01 | -3503.33 | 17.12 | 0.00    | 3503.37 | 1917332.52 | 11974532.87 | 677.99  |
| 6100.00 | 90.00 | 179.7 | 2912.01 | -3553.33 | 17.37 | 0.00    | 3553.37 | 1917332.77 | 11974482.87 | 677.99  |
| 6150.00 | 90.00 | 179.7 | 2912.01 | -3603.33 | 17.61 | 0.00    | 3603.37 | 1917333.01 | 11974432.87 | 677.99  |
| 6200.00 | 90.00 | 179.7 | 2912.01 | -3653.33 | 17.85 | 0.00    | 3653.37 | 1917333.25 | 11974382.87 | 677.99  |
| 6250.00 | 90.00 | 179.7 | 2912.01 | -3703.32 | 18.10 | 0.00    | 3703.37 | 1917333.50 | 11974332.88 | 677.99  |
| 6300.00 | 90.00 | 179.7 | 2912.01 | -3753.32 | 18.34 | 0.00    | 3753.37 | 1917333.74 | 11974282.88 | 677.99  |
| 6350.00 | 90.00 | 179.7 | 2912.01 | -3803.32 | 18.59 | 0.00    | 3803.37 | 1917333.99 | 11974232.88 | 677.99  |
| 6400.00 | 90.00 | 179.7 | 2912.01 | -3853.32 | 18.83 | 0.00    | 3853.37 | 1917334.23 | 11974182.88 | 677.99  |
| 6450.00 | 90.00 | 179.7 | 2912.01 | -3903.32 | 19.08 | 0.00    | 3903.37 | 1917334.48 | 11974132.88 | 677.99  |
| 6500.00 | 90.00 | 179.7 | 2912.01 | -3953.32 | 19.32 | 0.00    | 3953.37 | 1917334.72 | 11974082.88 | 677.99  |
| 6550.00 | 90.00 | 179.7 | 2912.01 | -4003.32 | 19.56 | 0.00    | 4003.37 | 1917334.96 | 11974032.88 | 677.99  |
| 6600.00 | 90.00 | 179.7 | 2912.01 | -4053.32 | 19.81 | 0.00    | 4053.37 | 1917335.21 | 11973982.88 | 677.99  |
| 6650.00 | 90.00 | 179.7 | 2912.01 | -4103.32 | 20.05 | 0.00    | 4103.37 | 1917335.45 | 11973932.88 | 677.99  |
| 6700.00 | 90.00 | 179.7 | 2912.01 | -4153.32 | 20.30 | 0.00    | 4153.37 | 1917335.70 | 11973882.88 | 677.99  |
| 6750.00 | 90.00 | 179.7 | 2912.01 | -4203.32 | 20.54 | 0.00    | 4203.37 | 1917335.94 | 11973832.88 | 677.99  |
| 6800.00 | 90.00 | 179.7 | 2912.01 | -4253.32 | 20.79 | 0.00    | 4253.37 | 1917336.19 | 11973782.88 | 677.99  |
| 6850.00 | 90.00 | 179.7 | 2912.01 | -4303.32 | 21.03 | 0.00    | 4303.37 | 1917336.43 | 11973732.88 | 677.99  |
| 6900.00 | 90.00 | 179.7 | 2912.01 | -4353.32 | 21.27 | 0.00    | 4353.37 | 1917336.67 | 11973682.88 | 677.99  |
| 6950.00 | 90.00 | 179.7 | 2912.01 | -4403.32 | 21.52 | 0.00    | 4403.37 | 1917336.92 | 11973632.88 | 677.99  |
| 7000.00 | 90.00 | 179.7 | 2912.01 | -4453.32 | 21.76 | 0.00    | 4453.37 | 1917337.16 | 11973582.88 | 677.99  |
| 7050.00 | 90.00 | 179.7 | 2912.01 | -4503.32 | 22.01 | 0.00    | 4503.37 | 1917337.41 | 11973532.88 | 677.99  |
| 7100.00 | 90.00 | 179.7 | 2912.01 | -4553.31 | 22.25 | 0.00    | 4553.37 | 1917337.65 | 11973482.89 | 677.99  |
| 7150.00 | 90.00 | 179.7 | 2912.01 | -4603.31 | 22.50 | 0.00    | 4603.37 | 1917337.90 | 11973432.89 | 677.99  |

## Markham State Com 1H, Plan 1

|                  |                      |                |               |                                  |                   |
|------------------|----------------------|----------------|---------------|----------------------------------|-------------------|
| <b>Operator</b>  | Mack Energy Corp     | <b>Units</b>   | feet, %/100ft | 15:12 Thursday, May 06, 2021     | Page 4 of 6       |
| <b>Field</b>     | Round Tank           | <b>County</b>  | Chaves        | <b>Vertical Section Azimuth</b>  | 179.72            |
| <b>Well Name</b> | Markham State Com 1H | <b>State</b>   | New Mexico    | <b>Survey Calculation Method</b> | Minimum Curvature |
| <b>Plan</b>      | 1                    | <b>Country</b> | USA           | <b>Database</b>                  | Access            |

|                    |                                                                                 |                     |            |                        |                |
|--------------------|---------------------------------------------------------------------------------|---------------------|------------|------------------------|----------------|
| <b>Location</b>    | SL: 330 FSL & 990 FEL Sec 23-T15S-R28E BHL: 1<br>FSL & 990 FEL Sec 26-T15S-R28E | <b>Map Zone</b>     | UTM        | <b>Lat Long Ref</b>    |                |
| <b>Site</b>        |                                                                                 | <b>Surface X</b>    | 1917315.4  | <b>Surface Long</b>    |                |
| <b>Slot Name</b>   |                                                                                 | <b>Surface Y</b>    | 11978036.2 | <b>Surface Lat</b>     |                |
| <b>Well Number</b> |                                                                                 | <b>Surface Z</b>    | 3590       | <b>Global Z Ref</b>    | Mean Sea Level |
| <b>Project</b>     |                                                                                 | <b>Ground Level</b> | 3574       | <b>Local North Ref</b> | Grid           |

## DIRECTIONAL WELL PLAN

| MD*     | INC*  | AZI*  | TVD*    | N*       | E*    | DLS*    | V. S.*  | MapE*      | MapN*       | SysTVD* |
|---------|-------|-------|---------|----------|-------|---------|---------|------------|-------------|---------|
| ft      | deg   | deg   | ft      | ft       | ft    | %/100ft | ft      | ft         | ft          | ft      |
| 7200.00 | 90.00 | 179.7 | 2912.01 | -4653.31 | 22.74 | 0.00    | 4653.37 | 1917338.14 | 11973382.89 | 677.99  |
| 7250.00 | 90.00 | 179.7 | 2912.01 | -4703.31 | 22.98 | 0.00    | 4703.37 | 1917338.38 | 11973332.89 | 677.99  |
| 7300.00 | 90.00 | 179.7 | 2912.01 | -4753.31 | 23.23 | 0.00    | 4753.37 | 1917338.63 | 11973282.89 | 677.99  |
| 7350.00 | 90.00 | 179.7 | 2912.01 | -4803.31 | 23.47 | 0.00    | 4803.37 | 1917338.87 | 11973232.89 | 677.99  |
| 7400.00 | 90.00 | 179.7 | 2912.01 | -4853.31 | 23.72 | 0.00    | 4853.37 | 1917339.12 | 11973182.89 | 677.99  |
| 7450.00 | 90.00 | 179.7 | 2912.01 | -4903.31 | 23.96 | 0.00    | 4903.37 | 1917339.36 | 11973132.89 | 677.99  |
| 7500.00 | 90.00 | 179.7 | 2912.01 | -4953.31 | 24.21 | 0.00    | 4953.37 | 1917339.61 | 11973082.89 | 677.99  |
| 7550.00 | 90.00 | 179.7 | 2912.01 | -5003.31 | 24.45 | 0.00    | 5003.37 | 1917339.85 | 11973032.89 | 677.99  |
| 7600.00 | 90.00 | 179.7 | 2912.01 | -5053.31 | 24.70 | 0.00    | 5053.37 | 1917340.10 | 11972982.89 | 677.99  |
| 7650.00 | 90.00 | 179.7 | 2912.01 | -5103.31 | 24.94 | 0.00    | 5103.37 | 1917340.34 | 11972932.89 | 677.99  |
| 7700.00 | 90.00 | 179.7 | 2912.01 | -5153.31 | 25.18 | 0.00    | 5153.37 | 1917340.58 | 11972882.89 | 677.99  |
| 7750.00 | 90.00 | 179.7 | 2912.01 | -5203.31 | 25.43 | 0.00    | 5203.37 | 1917340.83 | 11972832.89 | 677.99  |
| 7800.00 | 90.00 | 179.7 | 2912.01 | -5253.31 | 25.67 | 0.00    | 5253.37 | 1917341.07 | 11972782.89 | 677.99  |
| 7850.00 | 90.00 | 179.7 | 2912.01 | -5303.31 | 25.92 | 0.00    | 5303.37 | 1917341.32 | 11972732.89 | 677.99  |
| 7900.00 | 90.00 | 179.7 | 2912.01 | -5353.31 | 26.16 | 0.00    | 5353.37 | 1917341.56 | 11972682.90 | 677.99  |
| 7950.00 | 90.00 | 179.7 | 2912.01 | -5403.30 | 26.41 | 0.00    | 5403.37 | 1917341.81 | 11972632.90 | 677.99  |
| 8000.00 | 90.00 | 179.7 | 2912.01 | -5453.30 | 26.65 | 0.00    | 5453.37 | 1917342.05 | 11972582.90 | 677.99  |
| 8050.00 | 90.00 | 179.7 | 2912.01 | -5503.30 | 26.89 | 0.00    | 5503.37 | 1917342.29 | 11972532.90 | 677.99  |
| 8100.00 | 90.00 | 179.7 | 2912.01 | -5553.30 | 27.14 | 0.00    | 5553.37 | 1917342.54 | 11972482.90 | 677.99  |
| 8150.00 | 90.00 | 179.7 | 2912.01 | -5603.30 | 27.38 | 0.00    | 5603.37 | 1917342.78 | 11972432.90 | 677.99  |
| 8200.00 | 90.00 | 179.7 | 2912.01 | -5653.30 | 27.63 | 0.00    | 5653.37 | 1917343.03 | 11972382.90 | 677.99  |
| 8250.00 | 90.00 | 179.7 | 2912.01 | -5703.30 | 27.87 | 0.00    | 5703.37 | 1917343.27 | 11972332.90 | 677.99  |
| 8300.00 | 90.00 | 179.7 | 2912.01 | -5753.30 | 28.12 | 0.00    | 5753.37 | 1917343.52 | 11972282.90 | 677.99  |
| 8350.00 | 90.00 | 179.7 | 2912.01 | -5803.30 | 28.36 | 0.00    | 5803.37 | 1917343.76 | 11972232.90 | 677.99  |
| 8400.00 | 90.00 | 179.7 | 2912.01 | -5853.30 | 28.60 | 0.00    | 5853.37 | 1917344.00 | 11972182.90 | 677.99  |
| 8450.00 | 90.00 | 179.7 | 2912.01 | -5903.30 | 28.85 | 0.00    | 5903.37 | 1917344.25 | 11972132.90 | 677.99  |
| 8500.00 | 90.00 | 179.7 | 2912.01 | -5953.30 | 29.09 | 0.00    | 5953.37 | 1917344.49 | 11972082.90 | 677.99  |
| 8550.00 | 90.00 | 179.7 | 2912.01 | -6003.30 | 29.34 | 0.00    | 6003.37 | 1917344.74 | 11972032.90 | 677.99  |
| 8600.00 | 90.00 | 179.7 | 2912.01 | -6053.30 | 29.58 | 0.00    | 6053.37 | 1917344.98 | 11971982.90 | 677.99  |
| 8650.00 | 90.00 | 179.7 | 2912.01 | -6103.30 | 29.83 | 0.00    | 6103.37 | 1917345.23 | 11971932.90 | 677.99  |
| 8700.00 | 90.00 | 179.7 | 2912.01 | -6153.30 | 30.07 | 0.00    | 6153.37 | 1917345.47 | 11971882.90 | 677.99  |
| 8750.00 | 90.00 | 179.7 | 2912.01 | -6203.29 | 30.32 | 0.00    | 6203.37 | 1917345.72 | 11971832.91 | 677.99  |
| 8800.00 | 90.00 | 179.7 | 2912.01 | -6253.29 | 30.56 | 0.00    | 6253.37 | 1917345.96 | 11971782.91 | 677.99  |
| 8850.00 | 90.00 | 179.7 | 2912.01 | -6303.29 | 30.80 | 0.00    | 6303.37 | 1917346.20 | 11971732.91 | 677.99  |
| 8900.00 | 90.00 | 179.7 | 2912.01 | -6353.29 | 31.05 | 0.00    | 6353.37 | 1917346.45 | 11971682.91 | 677.99  |
| 8950.00 | 90.00 | 179.7 | 2912.01 | -6403.29 | 31.29 | 0.00    | 6403.37 | 1917346.69 | 11971632.91 | 677.99  |
| 9000.00 | 90.00 | 179.7 | 2912.01 | -6453.29 | 31.54 | 0.00    | 6453.37 | 1917346.94 | 11971582.91 | 677.99  |

## Markham State Com 1H, Plan 1

|                                       |                            |                                                    |
|---------------------------------------|----------------------------|----------------------------------------------------|
| <b>Operator</b> Mack Energy Corp      | <b>Units</b> feet, °/100ft | 15:12 Thursday, May 06, 2021 Page 5 of 6           |
| <b>Field</b> Round Tank               | <b>County</b> Chaves       | <b>Vertical Section Azimuth</b> 179.72             |
| <b>Well Name</b> Markham State Com 1H | <b>State</b> New Mexico    | <b>Survey Calculation Method</b> Minimum Curvature |
| <b>Plan</b> 1                         | <b>Country</b> USA         | <b>Database</b> Access                             |

|                                                                                                 |                             |                                    |
|-------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------|
| <b>Location</b> SL: 330 FSL & 990 FEL Sec 23-T15S-R28E BHL: 1<br>FSL & 990 FEL Sec 26-T15S-R28E | <b>Map Zone</b> UTM         | <b>Lat Long Ref</b>                |
| <b>Site</b>                                                                                     | <b>Surface X</b> 1917315.4  | <b>Surface Long</b>                |
| <b>Slot Name</b>                                                                                | <b>Surface Y</b> 11978036.2 | <b>Surface Lat</b>                 |
| <b>Well Number</b>                                                                              | <b>Surface Z</b> 3590       | <b>Global Z Ref</b> Mean Sea Level |
| <b>Project</b>                                                                                  | <b>Ground Level</b> 3574    | <b>Local North Ref</b> Grid        |

## DIRECTIONAL WELL PLAN

| MD*      | INC*  | AZI*  | TVD*    | N*       | E*    | DLS*    | V. S.*  | MapE*      | MapN*       | SysTVD* |
|----------|-------|-------|---------|----------|-------|---------|---------|------------|-------------|---------|
| ft       | deg   | deg   | ft      | ft       | ft    | °/100ft | ft      | ft         | ft          | ft      |
| 9050.00  | 90.00 | 179.7 | 2912.01 | -6503.29 | 31.78 | 0.00    | 6503.37 | 1917347.18 | 11971532.91 | 677.99  |
| 9100.00  | 90.00 | 179.7 | 2912.01 | -6553.29 | 32.03 | 0.00    | 6553.37 | 1917347.43 | 11971482.91 | 677.99  |
| 9150.00  | 90.00 | 179.7 | 2912.01 | -6603.29 | 32.27 | 0.00    | 6603.37 | 1917347.67 | 11971432.91 | 677.99  |
| 9200.00  | 90.00 | 179.7 | 2912.01 | -6653.29 | 32.51 | 0.00    | 6653.37 | 1917347.91 | 11971382.91 | 677.99  |
| 9250.00  | 90.00 | 179.7 | 2912.01 | -6703.29 | 32.76 | 0.00    | 6703.37 | 1917348.16 | 11971332.91 | 677.99  |
| 9300.00  | 90.00 | 179.7 | 2912.01 | -6753.29 | 33.00 | 0.00    | 6753.37 | 1917348.40 | 11971282.91 | 677.99  |
| 9350.00  | 90.00 | 179.7 | 2912.01 | -6803.29 | 33.25 | 0.00    | 6803.37 | 1917348.65 | 11971232.91 | 677.99  |
| 9400.00  | 90.00 | 179.7 | 2912.01 | -6853.29 | 33.49 | 0.00    | 6853.37 | 1917348.89 | 11971182.91 | 677.99  |
| 9450.00  | 90.00 | 179.7 | 2912.01 | -6903.29 | 33.74 | 0.00    | 6903.37 | 1917349.14 | 11971132.91 | 677.99  |
| 9500.00  | 90.00 | 179.7 | 2912.01 | -6953.29 | 33.98 | 0.00    | 6953.37 | 1917349.38 | 11971082.91 | 677.99  |
| 9550.00  | 90.00 | 179.7 | 2912.01 | -7003.29 | 34.22 | 0.00    | 7003.37 | 1917349.62 | 11971032.91 | 677.99  |
| 9600.00  | 90.00 | 179.7 | 2912.01 | -7053.28 | 34.47 | 0.00    | 7053.37 | 1917349.87 | 11970982.92 | 677.99  |
| 9650.00  | 90.00 | 179.7 | 2912.01 | -7103.28 | 34.71 | 0.00    | 7103.37 | 1917350.11 | 11970932.92 | 677.99  |
| 9700.00  | 90.00 | 179.7 | 2912.01 | -7153.28 | 34.96 | 0.00    | 7153.37 | 1917350.36 | 11970882.92 | 677.99  |
| 9750.00  | 90.00 | 179.7 | 2912.01 | -7203.28 | 35.20 | 0.00    | 7203.37 | 1917350.60 | 11970832.92 | 677.99  |
| 9800.00  | 90.00 | 179.7 | 2912.01 | -7253.28 | 35.45 | 0.00    | 7253.37 | 1917350.85 | 11970782.92 | 677.99  |
| 9850.00  | 90.00 | 179.7 | 2912.01 | -7303.28 | 35.69 | 0.00    | 7303.37 | 1917351.09 | 11970732.92 | 677.99  |
| 9900.00  | 90.00 | 179.7 | 2912.01 | -7353.28 | 35.94 | 0.00    | 7353.37 | 1917351.34 | 11970682.92 | 677.99  |
| 9950.00  | 90.00 | 179.7 | 2912.01 | -7403.28 | 36.18 | 0.00    | 7403.37 | 1917351.58 | 11970632.92 | 677.99  |
| 10000.00 | 90.00 | 179.7 | 2912.01 | -7453.28 | 36.42 | 0.00    | 7453.37 | 1917351.82 | 11970582.92 | 677.99  |
| 10050.00 | 90.00 | 179.7 | 2912.01 | -7503.28 | 36.67 | 0.00    | 7503.37 | 1917352.07 | 11970532.92 | 677.99  |
| 10100.00 | 90.00 | 179.7 | 2912.01 | -7553.28 | 36.91 | 0.00    | 7553.37 | 1917352.31 | 11970482.92 | 677.99  |
| 10150.00 | 90.00 | 179.7 | 2912.01 | -7603.28 | 37.16 | 0.00    | 7603.37 | 1917352.56 | 11970432.92 | 677.99  |
| 10200.00 | 90.00 | 179.7 | 2912.01 | -7653.28 | 37.40 | 0.00    | 7653.37 | 1917352.80 | 11970382.92 | 677.99  |
| 10250.00 | 90.00 | 179.7 | 2912.01 | -7703.28 | 37.65 | 0.00    | 7703.37 | 1917353.05 | 11970332.92 | 677.99  |
| 10300.00 | 90.00 | 179.7 | 2912.01 | -7753.28 | 37.89 | 0.00    | 7753.37 | 1917353.29 | 11970282.92 | 677.99  |
| 10350.00 | 90.00 | 179.7 | 2912.01 | -7803.28 | 38.13 | 0.00    | 7803.37 | 1917353.53 | 11970232.92 | 677.99  |
| 10400.00 | 90.00 | 179.7 | 2912.01 | -7853.28 | 38.38 | 0.00    | 7853.37 | 1917353.78 | 11970182.92 | 677.99  |
| 10450.00 | 90.00 | 179.7 | 2912.01 | -7903.27 | 38.62 | 0.00    | 7903.37 | 1917354.02 | 11970132.93 | 677.99  |
| 10500.00 | 90.00 | 179.7 | 2912.01 | -7953.27 | 38.87 | 0.00    | 7953.37 | 1917354.27 | 11970082.93 | 677.99  |
| 10550.00 | 90.00 | 179.7 | 2912.01 | -8003.27 | 39.11 | 0.00    | 8003.37 | 1917354.51 | 11970032.93 | 677.99  |
| 10600.00 | 90.00 | 179.7 | 2912.01 | -8053.27 | 39.36 | 0.00    | 8053.37 | 1917354.76 | 11969982.93 | 677.99  |
| 10650.00 | 90.00 | 179.7 | 2912.01 | -8103.27 | 39.60 | 0.00    | 8103.37 | 1917355.00 | 11969932.93 | 677.99  |
| 10700.00 | 90.00 | 179.7 | 2912.01 | -8153.27 | 39.84 | 0.00    | 8153.37 | 1917355.24 | 11969882.93 | 677.99  |
| 10750.00 | 90.00 | 179.7 | 2912.01 | -8203.27 | 40.09 | 0.00    | 8203.37 | 1917355.49 | 11969832.93 | 677.99  |
| 10800.00 | 90.00 | 179.7 | 2912.01 | -8253.27 | 40.33 | 0.00    | 8253.37 | 1917355.73 | 11969782.93 | 677.99  |
| 10850.00 | 90.00 | 179.7 | 2912.01 | -8303.27 | 40.58 | 0.00    | 8303.37 | 1917355.98 | 11969732.93 | 677.99  |

## Markham State Com 1H, Plan 1

|                    |                                                                                 |                |                     |                                  |                                    |
|--------------------|---------------------------------------------------------------------------------|----------------|---------------------|----------------------------------|------------------------------------|
| <b>Operator</b>    | Mack Energy Corp                                                                | <b>Units</b>   | feet, °/100ft       | 15:12 Thursday, May 06, 2021     | Page 6 of 6                        |
| <b>Field</b>       | Round Tank                                                                      | <b>County</b>  | Chaves              | <b>Vertical Section Azimuth</b>  | 179.72                             |
| <b>Well Name</b>   | Markham State Com 1H                                                            | <b>State</b>   | New Mexico          | <b>Survey Calculation Method</b> | Minimum Curvature                  |
| <b>Plan</b>        | 1                                                                               | <b>Country</b> | USA                 | <b>Database</b>                  | Access                             |
| <b>Location</b>    | SL: 330 FSL & 990 FEL Sec 23-T15S-R28E BHL: 1<br>FSL & 990 FEL Sec 26-T15S-R28E |                | <b>Map Zone</b>     | UTM                              | <b>Lat Long Ref</b>                |
| <b>Site</b>        |                                                                                 |                | <b>Surface X</b>    | 1917315.4                        | <b>Surface Long</b>                |
| <b>Slot Name</b>   | <b>UWI</b>                                                                      |                | <b>Surface Y</b>    | 11978036.2                       | <b>Surface Lat</b>                 |
| <b>Well Number</b> | <b>API</b>                                                                      |                | <b>Surface Z</b>    | 3590                             | <b>Global Z Ref</b> Mean Sea Level |
| <b>Project</b>     | <b>MD/TVD Ref</b> KB                                                            |                | <b>Ground Level</b> | 3574                             | <b>Local North Ref</b> Grid        |

## DIRECTIONAL WELL PLAN

| MD*                       | INC*  | AZI*  | TVD*    | N*       | E*    | DLS*    | V. S.*  | MapE*      | MapN*       | SysTVD* |
|---------------------------|-------|-------|---------|----------|-------|---------|---------|------------|-------------|---------|
| ft                        | deg   | deg   | ft      | ft       | ft    | °/100ft | ft      | ft         | ft          | ft      |
| 10900.00                  | 90.00 | 179.7 | 2912.01 | -8353.27 | 40.82 | 0.00    | 8353.37 | 1917356.22 | 11969682.93 | 677.99  |
| 10950.00                  | 90.00 | 179.7 | 2912.01 | -8403.27 | 41.07 | 0.00    | 8403.37 | 1917356.47 | 11969632.93 | 677.99  |
| 11000.00                  | 90.00 | 179.7 | 2912.01 | -8453.27 | 41.31 | 0.00    | 8453.37 | 1917356.71 | 11969582.93 | 677.99  |
| 11050.00                  | 90.00 | 179.7 | 2912.01 | -8503.27 | 41.56 | 0.00    | 8503.37 | 1917356.96 | 11969532.93 | 677.99  |
| 11100.00                  | 90.00 | 179.7 | 2912.01 | -8553.27 | 41.80 | 0.00    | 8553.37 | 1917357.20 | 11969482.93 | 677.99  |
| 11150.00                  | 90.00 | 179.7 | 2912.01 | -8603.27 | 42.04 | 0.00    | 8603.37 | 1917357.44 | 11969432.93 | 677.99  |
| 11200.00                  | 90.00 | 179.7 | 2912.01 | -8653.27 | 42.29 | 0.00    | 8653.37 | 1917357.69 | 11969382.93 | 677.99  |
| 11250.00                  | 90.00 | 179.7 | 2912.01 | -8703.27 | 42.53 | 0.00    | 8703.37 | 1917357.93 | 11969332.94 | 677.99  |
| 11300.00                  | 90.00 | 179.7 | 2912.01 | -8753.26 | 42.78 | 0.00    | 8753.37 | 1917358.18 | 11969282.94 | 677.99  |
| 11350.00                  | 90.00 | 179.7 | 2912.01 | -8803.26 | 43.02 | 0.00    | 8803.37 | 1917358.42 | 11969232.94 | 677.99  |
| 11400.00                  | 90.00 | 179.7 | 2912.01 | -8853.26 | 43.27 | 0.00    | 8853.37 | 1917358.67 | 11969182.94 | 677.99  |
| 11450.00                  | 90.00 | 179.7 | 2912.01 | -8903.26 | 43.51 | 0.00    | 8903.37 | 1917358.91 | 11969132.94 | 677.99  |
| 11500.00                  | 90.00 | 179.7 | 2912.01 | -8953.26 | 43.75 | 0.00    | 8953.37 | 1917359.15 | 11969082.94 | 677.99  |
| 11550.00                  | 90.00 | 179.7 | 2912.01 | -9003.26 | 44.00 | 0.00    | 9003.37 | 1917359.40 | 11969032.94 | 677.99  |
| 11600.00                  | 90.00 | 179.7 | 2912.01 | -9053.26 | 44.24 | 0.00    | 9053.37 | 1917359.64 | 11968982.94 | 677.99  |
| 11650.00                  | 90.00 | 179.7 | 2912.01 | -9103.26 | 44.49 | 0.00    | 9103.37 | 1917359.89 | 11968932.94 | 677.99  |
| 11700.00                  | 90.00 | 179.7 | 2912.01 | -9153.26 | 44.73 | 0.00    | 9153.37 | 1917360.13 | 11968882.94 | 677.99  |
| 11750.00                  | 90.00 | 179.7 | 2912.01 | -9203.26 | 44.98 | 0.00    | 9203.37 | 1917360.38 | 11968832.94 | 677.99  |
| 11800.00                  | 90.00 | 179.7 | 2912.01 | -9253.26 | 45.22 | 0.00    | 9253.37 | 1917360.62 | 11968782.94 | 677.99  |
| 11850.00                  | 90.00 | 179.7 | 2912.01 | -9303.26 | 45.46 | 0.00    | 9303.37 | 1917360.86 | 11968732.94 | 677.99  |
| 11900.00                  | 90.00 | 179.7 | 2912.01 | -9353.26 | 45.71 | 0.00    | 9353.37 | 1917361.11 | 11968682.94 | 677.99  |
| 11950.00                  | 90.00 | 179.7 | 2912.01 | -9403.26 | 45.95 | 0.00    | 9403.37 | 1917361.35 | 11968632.94 | 677.99  |
| 12000.00                  | 90.00 | 179.7 | 2912.01 | -9453.26 | 46.20 | 0.00    | 9453.37 | 1917361.60 | 11968582.94 | 677.99  |
| 12050.00                  | 90.00 | 179.7 | 2912.01 | -9503.26 | 46.44 | 0.00    | 9503.37 | 1917361.84 | 11968532.94 | 677.99  |
| 12100.00                  | 90.00 | 179.7 | 2912.01 | -9553.25 | 46.69 | 0.00    | 9553.37 | 1917362.09 | 11968482.95 | 677.99  |
| 12150.00                  | 90.00 | 179.7 | 2912.01 | -9603.25 | 46.93 | 0.00    | 9603.37 | 1917362.33 | 11968432.95 | 677.99  |
| *** TD (at MD = 12162.50) |       |       |         |          |       |         |         |            |             |         |
| 12162.50                  | 90.00 | 179.7 | 2912.01 | -9615.75 | 46.99 | 0.00    | 9615.87 | 1917362.39 | 11968420.45 | 677.99  |

**District I**

1625 N. French Dr., Hobbs, NM 88240  
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**District II**

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Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 28142

**COMMENTS**

|                                                                        |                                                      |
|------------------------------------------------------------------------|------------------------------------------------------|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837                                      |
|                                                                        | Action Number:<br>28142                              |
|                                                                        | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

**COMMENTS**

| Created By | Comment                 | Comment Date |
|------------|-------------------------|--------------|
| kpickford  | KP GEO Review 5/14/2021 | 5/14/2021    |

**District I**

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Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 28142

**CONDITIONS**

|                                                                        |                                                      |
|------------------------------------------------------------------------|------------------------------------------------------|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837                                      |
|                                                                        | Action Number:<br>28142                              |
|                                                                        | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

**CONDITIONS**

| Created By | Condition                                       | Condition Date |
|------------|-------------------------------------------------|----------------|
| kpickford  | Adhere to previous NMOCD Conditions of Approval | 5/14/2021      |