

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., 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 & Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

OCD – REC'D 6/26/2020

Form C-104  
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

|                                                                                                                         |                                                            |                                                           |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|
| <sup>1</sup> Operator name and Address<br>XTO Permian Operating LLC<br>6401 Holiday Hill Road Bldg 5, Midland, TX 79707 |                                                            | <sup>2</sup> OGRID Number<br>373075                       |
|                                                                                                                         |                                                            | <sup>3</sup> Reason for Filing Code/ Effective Date<br>RT |
| <sup>4</sup> API Number<br>30 - 015-45398                                                                               | <sup>5</sup> Pool Name<br>WC G-07 S223021G; Bone Spring    | <sup>6</sup> Pool Code<br>97905                           |
| <sup>7</sup> Property Code<br>322839                                                                                    | <sup>8</sup> Property Name<br>James Ranch Unit D11 BS2A-5W | <sup>9</sup> Well Number<br>210H                          |

II. <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 |
| G             | 21      | 22S      | 30E   |         | 1542          | North            | 1761          | East           | Eddy   |

<sup>11</sup> Bottom Hole Location

|                             |                                          |                                   |                                   |         |                                    |                  |                                     |                |        |
|-----------------------------|------------------------------------------|-----------------------------------|-----------------------------------|---------|------------------------------------|------------------|-------------------------------------|----------------|--------|
| UL or lot no.               | Section                                  | Township                          | Range                             | Lot Idn | Feet from the                      | North/South line | Feet from the                       | East/West line | County |
| 3                           | 19S                                      | 22S                               | 30E                               |         | 1973                               | South            | 28                                  | West           | Eddy   |
| <sup>12</sup> Lse Code<br>F | <sup>13</sup> Producing Method Code<br>F | <sup>14</sup> Gas Connection Date | <sup>15</sup> C-129 Permit Number |         | <sup>16</sup> C-129 Effective Date |                  | <sup>17</sup> C-129 Expiration Date |                |        |

III. Oil and Gas Transporters

|                                 |                                            |                     |
|---------------------------------|--------------------------------------------|---------------------|
| <sup>18</sup> Transporter OGRID | <sup>19</sup> Transporter Name and Address | <sup>20</sup> O/G/W |
|                                 | XTO Permian Midstream                      | O                   |
|                                 |                                            |                     |
|                                 | XTO Permian Midstream                      | G                   |
|                                 |                                            |                     |
|                                 |                                            |                     |
|                                 |                                            |                     |
|                                 |                                            |                     |

IV. Well Completion Data

|                                     |                                      |                                              |                                                 |                                                                       |                               |
|-------------------------------------|--------------------------------------|----------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------|-------------------------------|
| <sup>21</sup> Spud Date<br>04/24/19 | <sup>22</sup> Ready Date<br>04/30/20 | <sup>23</sup> TD<br>24,300' MD/<br>9006' TVD | <sup>24</sup> PBTD<br>24,212' MD/<br>9,006' TVD | <sup>25</sup> Perforations<br>9,927'-24,162' MD/<br>9,296'-9,008' TVD | <sup>26</sup> DHC, MC<br>None |
| <sup>27</sup> Hole Size             |                                      | <sup>28</sup> Casing & Tubing Size           |                                                 | <sup>29</sup> Depth Set                                               | <sup>30</sup> Sacks Cement    |
| 17-1/2"                             |                                      | 13-3/8", J55, 54.5#                          |                                                 | 424                                                                   | 1213sx                        |
| 12-1/4"                             |                                      | 9-5/8", J55/HCL80, 36#                       |                                                 | 3487                                                                  | 1385sx                        |
| 8-3/4" / 8-1/2"                     |                                      | 5-1/2" CYP110 17#                            |                                                 | 24,300                                                                | 4300sx                        |
|                                     |                                      | 2-7/8" J-55 tbg                              |                                                 | 8,765                                                                 |                               |

V. Well Test Data

|                            |                                 |                         |                           |                             |                             |
|----------------------------|---------------------------------|-------------------------|---------------------------|-----------------------------|-----------------------------|
| <sup>31</sup> Date New Oil | <sup>32</sup> Gas Delivery Date | <sup>33</sup> Test Date | <sup>34</sup> Test Length | <sup>35</sup> Tbg. Pressure | <sup>36</sup> Csg. Pressure |
| <sup>37</sup> Choke Size   | <sup>38</sup> Oil               | <sup>39</sup> Water     | <sup>40</sup> Gas         |                             | <sup>41</sup> Test Method   |

|                                                                                                                                                                                                                                                                                                            |                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <sup>42</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.<br>Signature:  | OIL CONSERVATION DIVISION                                                                          |
| Printed name: Tracie J. Cherry                                                                                                                                                                                                                                                                             | Approved by:  |
| Title: Regulatory Coordinator                                                                                                                                                                                                                                                                              | Title:                                                                                             |
| E-mail Address: tracie_cherry@xtoenergy.com                                                                                                                                                                                                                                                                | Approval Date: <b>RT EXPIRED: 7/30/2020</b>                                                        |
| Date: 06/26/20                                                                                                                                                                                                                                                                                             | Phone: 432-221-7379                                                                                |

Please do not submit sundry notices unapproved/approved with C-104 packets. Review highlighted fields and attachments. Amend and re-submit electronically. This should be a C-104NW if approved sundry shows production eff. 6/21/2020

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

AS-DRILLED PLAT

|                                         |                                                             |                                                         |
|-----------------------------------------|-------------------------------------------------------------|---------------------------------------------------------|
| <sup>1</sup> API Number<br>30-015-45398 | <sup>2</sup> Pool Code<br>97905                             | <sup>3</sup> Pool Name<br>WC G-07 S223021G; Bone Spring |
| <sup>4</sup> Property Code<br>322839    | <sup>5</sup> Property Name<br>JAMES RANCH UNIT DI 1 BS2A-5W | <sup>6</sup> Well Number<br>210H                        |
| <sup>7</sup> OGRID No.<br>373075        | <sup>8</sup> Operator Name<br>XTO PERMIAN OPERATING, LLC.   | <sup>9</sup> Elevation<br>3,166'                        |

<sup>10</sup> Surface Location

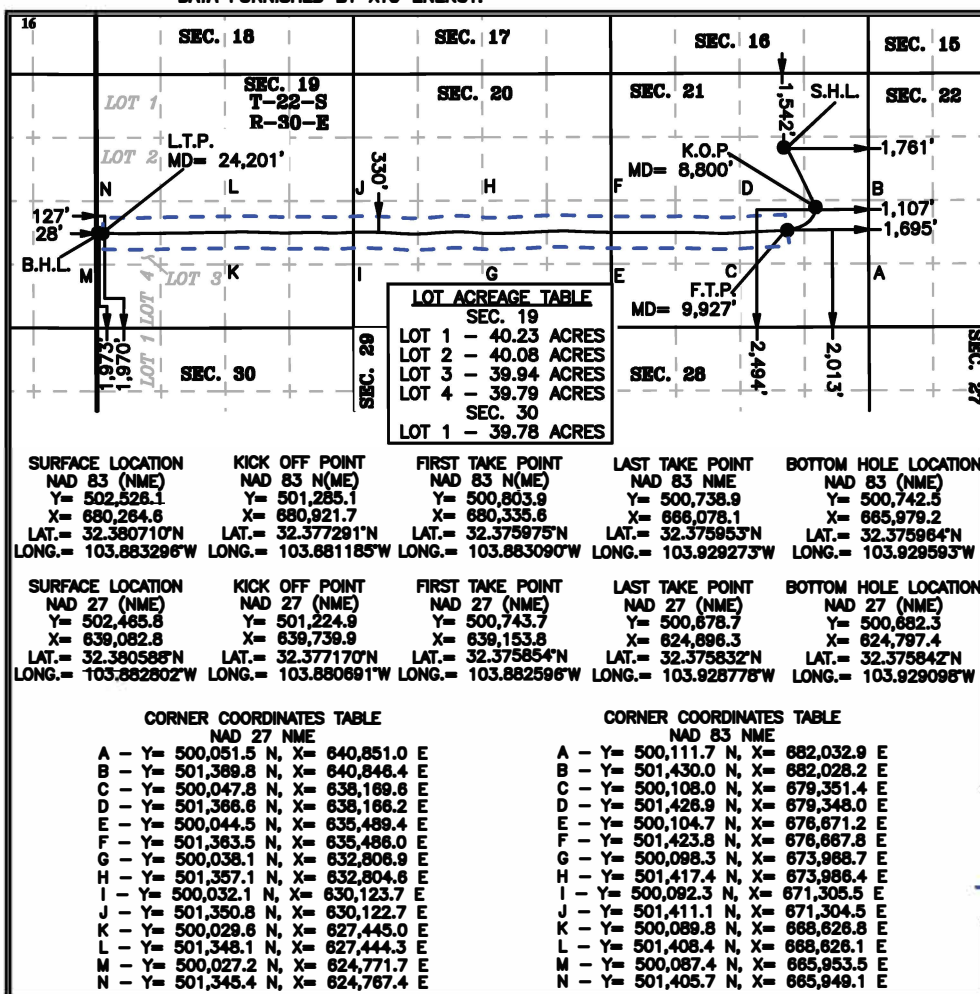
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| G             | 21      | 22 S     | 30 E  |         | 1,542         | NORTH            | 1,761         | EAST           | EDDY   |

<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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| 3             | 19      | 22 S     | 30 E  |         | 1,973         | SOUTH            | 28            | WEST           | EDDY   |

|                                      |                               |                                  |                         |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>440 | <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.  
NOTE: AS-DRILLED BOTTOM HOLE PLOTTED FROM DATA FURNISHED BY XTO ENERGY.



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or 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.

Signature: *Tracie J. Cherry* Date: 06/26/20

Printed Name: Tracie J. Cherry, Regulatory Coordinator

E-mail Address: tracie\_cherry@xtoenergy.com

<sup>18</sup> SURVEYOR CERTIFICATION

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

6-23-2020

Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP 23786  
Certificate Number



RR 2017050645

Intent ☐ As Drilled ☒

|                                              |                                                |                     |
|----------------------------------------------|------------------------------------------------|---------------------|
| API #<br>30-015-45398                        |                                                |                     |
| Operator Name:<br>XTO PERMIAN OPERATING, LLC | Property Name:<br>James Ranch Unit DI1 BS2A-5W | Well Number<br>210H |

Kick Off Point (KOP)

|                         |               |                 |              |     |                           |               |              |               |                |
|-------------------------|---------------|-----------------|--------------|-----|---------------------------|---------------|--------------|---------------|----------------|
| UL<br>I                 | Section<br>21 | Township<br>22S | Range<br>30E | Lot | Feet<br>2494              | From N/S<br>S | Feet<br>1107 | From E/W<br>E | County<br>Eddy |
| Latitude<br>32.377291 N |               |                 |              |     | Longitude<br>103.881185 W |               |              |               | NAD<br>83      |

First Take Point (FTP)

|                         |               |                 |              |     |                           |               |              |               |                |
|-------------------------|---------------|-----------------|--------------|-----|---------------------------|---------------|--------------|---------------|----------------|
| UL<br>J                 | Section<br>21 | Township<br>22S | Range<br>30E | Lot | Feet<br>2013              | From N/S<br>S | Feet<br>1695 | From E/W<br>E | County<br>Eddy |
| Latitude<br>32.375975 N |               |                 |              |     | Longitude<br>103.883090 W |               |              |               | NAD<br>83      |

Last Take Point (LTP)

|                         |                |                 |              |          |                           |               |             |               |                |
|-------------------------|----------------|-----------------|--------------|----------|---------------------------|---------------|-------------|---------------|----------------|
| UL                      | Section<br>19S | Township<br>22S | Range<br>30E | Lot<br>3 | Feet<br>1970              | From N/S<br>S | Feet<br>127 | From E/W<br>W | County<br>Eddy |
| Latitude<br>32.375953 N |                |                 |              |          | Longitude<br>103.929273 W |               |             |               | NAD<br>83      |

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 #<br>30-015-45397                        |                                           |                     |
| Operator Name:<br>XTO PERMIAN OPERATING, LLC | Property Name:<br>James Ranch Unit BS1-3E | Well Number<br>213H |

KZ 06/29/2018

**5D Survey Report****XTO Energy**

**Field Name:** *XTO NAD 27 NME*  
**Site Name:** *James Ranch Unit DI 1 #210H\_211H\_212H\_213H*  
**Well Name:** *James Ranch Unit DI 1 BS2A-5W #210H*  
**File number:** *13710735*  
**Survey:** *Definitive survey*

4 June 2019





## James Ranch Unit DI 1 BS2A-5W #210H

|                                                                   |                                                                |                           |                             |             |
|-------------------------------------------------------------------|----------------------------------------------------------------|---------------------------|-----------------------------|-------------|
| Field Name:<br><br>XTO NAD 27<br>NME                              | Map Units: US ft                                               |                           | Company Name: XTO Energy    |             |
|                                                                   | Vertical Reference Datum (VRD): Mean Sea Level                 |                           |                             |             |
|                                                                   | Projected Coordinate System: NAD27 / New Mexico East           |                           |                             |             |
|                                                                   | Comment:                                                       |                           |                             |             |
| Site:<br><br>James Ranch<br>Unit DI 1<br>#210H_211H_2<br>12H_213H | Units: US ft                                                   | North Reference: Grid     | Convergence Angle: 0.24     |             |
|                                                                   | Position:                                                      | Northing: 502465.80 US ft | Latitude: 32° 22' 50.12"    |             |
|                                                                   |                                                                | Easting: 639082.80 US ft  | Longitude: -103° 52' 58.09" |             |
|                                                                   | Elevation above MSL:3166.00 US ft                              |                           |                             |             |
|                                                                   | Comment: Eddy Co, NM                                           |                           |                             |             |
| Slot:<br><br>James Ranch<br>Unit DI 1 BS2A-<br>5W #210H           | Position (Relative to Site Centre)                             |                           |                             |             |
|                                                                   | +N/-S: 0.00 US ft                                              | Northing: 502465.80 US ft | Latitude: 32° 22' 50.12"    |             |
|                                                                   | +E/-W: 0.00 US ft                                              | Easting: 639082.80 US ft  | Longitude: -103° 52' 58.09" |             |
|                                                                   | Elevation above MSL: 3166.00 US ft                             |                           |                             |             |
|                                                                   | Comment:                                                       |                           |                             |             |
| Well:<br><br>James Ranch<br>Unit DI 1 BS2A-<br>5W #210H           | Type:Main well                                                 |                           | UWI:                        |             |
|                                                                   | File Number:                                                   | Comment:                  |                             |             |
|                                                                   | 13710735                                                       |                           |                             |             |
|                                                                   | Closure Distance:14396.3US ft                                  |                           | Closure Azimuth:262.88°     |             |
|                                                                   | Vertical Section: Position of Origin (Relative to Slot centre) |                           |                             |             |
|                                                                   | +N/-S: 0.00 US ft                                              |                           | +E/-W: -0.00 US ft          | Az: 269.91° |

**Drill floor:** Survey Name: Definitive Survey

**Rig Height (Well TVD Reference):** Elevation above MSL: 3191.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°  
25.00 US ft

### Survey Name: Definitive Survey

**Date:** 05/Feb/2019 **Survey Tool:** See Survey **Comment:** **Company:**  
Tool Ranges below.

### Magnetic Model:

**Model Name:** MagVar **Date:** 28/Apr/2019 **Field Strength:** 47935.0 nT **Declination:** 7.16° **Dip:** 60.11°  
IFR

### Tie Point:

**MD:** 0.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00 US ft **North Offset:** 0.00 US ft **East Offset:** -0.00 US ft

## 5D Survey Report

| Survey Tool Ranges: |                |              |                  |
|---------------------|----------------|--------------|------------------|
| Name                | Start MD(USFt) | End MD(USFt) | Source Survey    |
| VES GyroFlex V3     | 0.00           | 1473.00      | Gyro             |
| MWD + IFR           | 1473.00        | 3420.00      | WFT MWD+IFR_1    |
| MWD + IFR           | 3420.00        | 8706.00      | WFT MWD+IFR_2    |
| MWD + IFR + MS      | 8706.00        | 11695.00     | WFT MWD+IFR+MS_3 |
| MWD + IFR + MS      | 11695.00       | 16074.00     | WFT MWD+IFR+MS_4 |
| MWD + IFR + MS      | 16074.00       | 20116.00     | WFT MWD+IFR+MS_5 |
| MWD + IFR + MS      | 20116.00       | 24300.00     | WFT MWD+IFR+MS_7 |

| Casing Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |         |        |             |                   |                  |                  |                  |                 |           |
|------------------------------------------------------------------------------|---------|--------|-------------|-------------------|------------------|------------------|------------------|-----------------|-----------|
| MD (US ft)                                                                   | Inc (°) | Az (°) | TVD (US ft) | TVD (MSL) (US ft) | N.Offset (US ft) | E.Offset (US ft) | Northing (US ft) | Easting (US ft) | Name      |
| 424.00                                                                       | 1.39    | 258.95 | 423.94      | -2767.06          | -0.46            | -5.92            | 502465.34        | 639076.88       | 13 3/8 in |
| 3497.00                                                                      | 8.23    | 154.32 | 3490.80     | 299.80            | -53.33           | 74.29            | 502412.47        | 639157.09       | 9 5/8 in  |

## Wellpath created using minimum curvature.

| Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |         |        |             |                   |            |                  |                  |                  |                 |                  |            |
|------------------------------------------------------------------------------|---------|--------|-------------|-------------------|------------|------------------|------------------|------------------|-----------------|------------------|------------|
| MD (US ft)                                                                   | Inc (°) | Az (°) | TVD (US ft) | TVD (MSL) (US ft) | VS (US ft) | N.Offset (US ft) | E.Offset (US ft) | Northing (US ft) | Easting (US ft) | DLS (°/100US ft) | Comment    |
| 0.00                                                                         | 0.00    | 0.00   | 0.00        | -3191.00          | -0.00      | 0.00             | -0.00            | 502465.80        | 639082.80       | 0.00             |            |
| 100.00                                                                       | 0.28    | 314.89 | 100.00      | -3091.00          | 0.17       | 0.17             | -0.17            | 502465.97        | 639082.63       | 0.28             |            |
| 200.00                                                                       | 0.84    | 268.83 | 199.99      | -2991.01          | 1.08       | 0.33             | -1.08            | 502466.13        | 639081.72       | 0.68             |            |
| 300.00                                                                       | 1.24    | 257.99 | 299.98      | -2891.02          | 2.87       | 0.09             | -2.87            | 502465.89        | 639079.93       | 0.44             |            |
| 412.00                                                                       | 1.61    | 260.97 | 411.94      | -2779.06          | 5.61       | -0.41            | -5.61            | 502465.39        | 639077.19       | 0.34             |            |
| 424.00                                                                       | 1.39    | 258.95 | 423.94      | -2767.06          | 5.92       | -0.46            | -5.92            | 502465.34        | 639076.88       | 1.87             | 13 3/8 in  |
| 500.00                                                                       | 0.36    | 171.43 | 499.93      | -2691.07          | 6.79       | -0.88            | -6.79            | 502464.92        | 639076.01       | 1.87             |            |
| 589.00                                                                       | 2.10    | 40.72  | 588.91      | -2602.09          | 5.68       | 0.08             | -5.68            | 502465.88        | 639077.12       | 2.64             |            |
| 623.00                                                                       | 2.40    | 29.89  | 622.89      | -2568.11          | 4.92       | 1.17             | -4.92            | 502466.97        | 639077.88       | 1.53             |            |
| 654.00                                                                       | 2.68    | 25.60  | 653.86      | -2537.14          | 4.28       | 2.39             | -4.29            | 502468.19        | 639078.51       | 1.09             |            |
| 685.00                                                                       | 2.92    | 13.63  | 684.82      | -2506.18          | 3.78       | 3.81             | -3.79            | 502469.61        | 639079.01       | 2.03             |            |
| 716.00                                                                       | 3.31    | 1.01   | 715.77      | -2475.23          | 3.58       | 5.47             | -3.58            | 502471.27        | 639079.22       | 2.54             |            |
| 747.00                                                                       | 3.44    | 356.97 | 746.72      | -2444.28          | 3.61       | 7.30             | -3.62            | 502473.10        | 639079.18       | 0.87             |            |
| 780.00                                                                       | 3.49    | 355.20 | 779.66      | -2411.34          | 3.74       | 9.28             | -3.75            | 502475.08        | 639079.05       | 0.36             |            |
| 845.00                                                                       | 3.55    | 348.41 | 844.54      | -2346.46          | 4.30       | 13.23            | -4.32            | 502479.03        | 639078.48       | 0.65             |            |
| 907.00                                                                       | 2.95    | 12.16  | 906.44      | -2284.56          | 4.35       | 16.67            | -4.37            | 502482.47        | 639078.43       | 2.36             |            |
| 970.00                                                                       | 2.59    | 69.02  | 969.38      | -2221.62          | 2.67       | 18.76            | -2.70            | 502484.56        | 639080.10       | 4.22             |            |
| 1033.00                                                                      | 3.96    | 104.20 | 1032.28     | -2158.72          | -0.76      | 18.74            | 0.74             | 502484.54        | 639083.54       | 3.76             |            |
| 1097.00                                                                      | 4.22    | 112.30 | 1096.12     | -2094.88          | -5.08      | 17.30            | 5.06             | 502483.10        | 639087.86       | 0.99             |            |
| 1191.00                                                                      | 3.63    | 84.25  | 1189.90     | -2001.10          | -11.24     | 16.29            | 11.22            | 502482.09        | 639094.02       | 2.11             |            |
| 1286.00                                                                      | 3.17    | 87.97  | 1284.74     | -1906.26          | -16.86     | 16.68            | 16.83            | 502482.48        | 639099.63       | 0.54             |            |
| 1381.00                                                                      | 3.10    | 87.34  | 1379.60     | -1811.40          | -22.05     | 16.90            | 22.03            | 502482.70        | 639104.83       | 0.08             |            |
| 1473.00                                                                      | 3.04    | 90.51  | 1471.46     | -1719.54          | -26.98     | 16.99            | 26.95            | 502482.79        | 639109.75       | 0.20             | Tie On VES |
| 1623.00                                                                      | 2.21    | 78.54  | 1621.31     | -1569.69          | -33.79     | 17.53            | 33.76            | 502483.33        | 639116.56       | 0.66             |            |
| 1717.00                                                                      | 2.72    | 89.47  | 1715.22     | -1475.78          | -37.80     | 17.91            | 37.77            | 502483.71        | 639120.57       | 0.74             |            |
| 1812.00                                                                      | 1.42    | 93.96  | 1810.15     | -1380.85          | -41.23     | 17.85            | 41.20            | 502483.65        | 639124.00       | 1.38             |            |
| 1906.00                                                                      | 1.14    | 87.21  | 1904.13     | -1286.87          | -43.32     | 17.81            | 43.29            | 502483.61        | 639126.09       | 0.34             |            |
| 2001.00                                                                      | 0.25    | 136.68 | 1999.12     | -1191.88          | -44.41     | 17.71            | 44.38            | 502483.51        | 639127.18       | 1.05             |            |
| 2096.00                                                                      | 0.50    | 234.62 | 2094.12     | -1096.88          | -44.21     | 17.32            | 44.18            | 502483.12        | 639126.98       | 0.62             |            |
| 2191.00                                                                      | 0.40    | 204.05 | 2189.12     | -1001.88          | -43.74     | 16.78            | 43.71            | 502482.58        | 639126.51       | 0.27             |            |
| 2285.00                                                                      | 0.30    | 221.08 | 2283.12     | -907.88           | -43.44     | 16.29            | 43.42            | 502482.09        | 639126.22       | 0.15             |            |
| 2380.00                                                                      | 0.40    | 194.16 | 2378.12     | -812.88           | -43.20     | 15.78            | 43.17            | 502481.58        | 639125.97       | 0.20             |            |
| 2475.00                                                                      | 0.25    | 192.02 | 2473.11     | -717.89           | -43.07     | 15.26            | 43.05            | 502481.06        | 639125.85       | 0.16             |            |
| 2568.00                                                                      | 0.21    | 144.02 | 2566.11     | -624.89           | -43.13     | 14.92            | 43.10            | 502480.72        | 639125.90       | 0.20             |            |
| 2663.00                                                                      | 0.47    | 134.76 | 2661.11     | -529.89           | -43.51     | 14.51            | 43.48            | 502480.31        | 639126.28       | 0.28             |            |
| 2758.00                                                                      | 1.00    | 137.50 | 2756.10     | -434.90           | -44.34     | 13.62            | 44.32            | 502479.42        | 639127.12       | 0.56             |            |
| 2853.00                                                                      | 2.35    | 147.04 | 2851.06     | -339.94           | -45.96     | 11.37            | 45.94            | 502477.17        | 639128.74       | 1.45             |            |
| 2946.00                                                                      | 3.48    | 146.34 | 2943.94     | -247.06           | -48.55     | 7.42             | 48.54            | 502473.22        | 639131.34       | 1.22             |            |
| 3041.00                                                                      | 5.38    | 152.59 | 3038.65     | -152.35           | -52.19     | 1.07             | 52.19            | 502466.87        | 639134.99       | 2.06             |            |
| 3136.00                                                                      | 6.52    | 157.20 | 3133.14     | -57.86            | -56.32     | -7.86            | 56.33            | 502457.94        | 639139.13       | 1.30             |            |

## 5D Survey Report

| Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |            |           |                |                      |               |                     |                     |                     |                    |                        | Comment  |
|------------------------------------------------------------------------------|------------|-----------|----------------|----------------------|---------------|---------------------|---------------------|---------------------|--------------------|------------------------|----------|
| MD<br>(US ft)                                                                | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | TVD (MSL)<br>(US ft) | VS<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) | DLS<br>(°/100US<br>ft) |          |
| 3231.00                                                                      | 7.72       | 160.56    | 3227.41        | 36.41                | -60.51        | -18.85              | 60.54               | 502446.95           | 639143.34          | 1.34                   | 9 5/8 in |
| 3326.00                                                                      | 7.96       | 160.81    | 3321.52        | 130.52               | -64.78        | -31.07              | 64.83               | 502434.73           | 639147.63          | 0.26                   |          |
| 3420.00                                                                      | 8.19       | 156.13    | 3414.59        | 223.59               | -69.61        | -43.34              | 69.68               | 502422.46           | 639152.48          | 0.74                   |          |
| 3497.00                                                                      | 8.23       | 154.32    | 3490.80        | 299.80               | -74.20        | -53.33              | 74.29               | 502412.47           | 639157.09          | 0.34                   |          |
| 3599.00                                                                      | 8.29       | 151.96    | 3591.74        | 400.74               | -80.80        | -66.39              | 80.91               | 502399.41           | 639163.71          | 0.34                   |          |
| 3693.00                                                                      | 10.55      | 150.35    | 3684.47        | 493.47               | -88.22        | -79.86              | 88.35               | 502385.94           | 639171.15          | 2.42                   |          |
| 3788.00                                                                      | 11.54      | 151.64    | 3777.71        | 586.71               | -97.01        | -95.78              | 97.17               | 502370.02           | 639179.97          | 1.07                   |          |
| 3881.00                                                                      | 13.08      | 154.40    | 3868.57        | 677.57               | -105.95       | -113.45             | 106.13              | 502352.35           | 639188.93          | 1.77                   |          |
| 3975.00                                                                      | 15.26      | 155.72    | 3959.70        | 768.70               | -115.60       | -134.32             | 115.82              | 502331.48           | 639198.62          | 2.34                   |          |
| 4070.00                                                                      | 16.21      | 155.30    | 4051.14        | 860.14               | -126.25       | -157.77             | 126.50              | 502308.03           | 639209.30          | 1.01                   |          |
| 4164.00                                                                      | 15.05      | 151.78    | 4141.66        | 950.66               | -137.47       | -180.44             | 137.75              | 502285.36           | 639220.55          | 1.59                   |          |
| 4258.00                                                                      | 14.66      | 150.43    | 4232.52        | 1041.52              | -149.08       | -201.54             | 149.39              | 502264.26           | 639232.19          | 0.55                   |          |
| 4353.00                                                                      | 14.60      | 149.65    | 4324.44        | 1133.44              | -161.03       | -222.33             | 161.37              | 502243.47           | 639244.17          | 0.22                   |          |
| 4447.00                                                                      | 14.35      | 149.46    | 4415.46        | 1224.46              | -172.90       | -242.59             | 173.28              | 502223.21           | 639256.08          | 0.27                   |          |
| 4542.00                                                                      | 15.32      | 150.61    | 4507.29        | 1316.29              | -185.01       | -263.66             | 185.42              | 502202.14           | 639268.22          | 1.07                   |          |
| 4637.00                                                                      | 16.04      | 151.61    | 4598.75        | 1407.75              | -197.37       | -286.14             | 197.82              | 502179.66           | 639280.62          | 0.81                   |          |
| 4732.00                                                                      | 16.34      | 152.09    | 4689.99        | 1498.99              | -209.83       | -309.50             | 210.32              | 502156.30           | 639293.12          | 0.35                   |          |
| 4827.00                                                                      | 16.69      | 151.85    | 4781.07        | 1590.07              | -222.48       | -333.34             | 223.01              | 502132.46           | 639305.81          | 0.38                   |          |
| 4921.00                                                                      | 15.53      | 154.46    | 4871.38        | 1680.38              | -234.24       | -356.59             | 234.80              | 502109.21           | 639317.60          | 1.45                   |          |
| 5014.00                                                                      | 15.47      | 154.36    | 4960.99        | 1769.99              | -244.94       | -379.01             | 245.54              | 502086.79           | 639328.34          | 0.07                   |          |
| 5109.00                                                                      | 15.24      | 153.56    | 5052.60        | 1861.60              | -255.95       | -401.61             | 256.58              | 502064.19           | 639339.38          | 0.33                   |          |
| 5204.00                                                                      | 14.78      | 153.55    | 5144.36        | 1953.36              | -266.87       | -423.64             | 267.54              | 502042.16           | 639350.34          | 0.48                   |          |
| 5298.00                                                                      | 14.49      | 153.57    | 5235.31        | 2044.31              | -277.41       | -444.90             | 278.11              | 502020.90           | 639360.91          | 0.31                   |          |
| 5393.00                                                                      | 14.44      | 153.98    | 5327.30        | 2136.30              | -287.86       | -466.19             | 288.60              | 501999.61           | 639371.40          | 0.12                   |          |
| 5489.00                                                                      | 14.75      | 154.18    | 5420.20        | 2229.20              | -298.40       | -487.95             | 299.17              | 501977.85           | 639381.97          | 0.33                   |          |
| 5584.00                                                                      | 15.03      | 154.03    | 5512.01        | 2321.01              | -309.03       | -509.91             | 309.83              | 501955.89           | 639392.63          | 0.30                   |          |
| 5678.00                                                                      | 15.36      | 153.31    | 5602.73        | 2411.73              | -319.92       | -531.99             | 320.76              | 501933.81           | 639403.56          | 0.40                   |          |
| 5773.00                                                                      | 15.85      | 152.65    | 5694.22        | 2503.22              | -331.50       | -554.75             | 332.37              | 501911.05           | 639415.17          | 0.55                   |          |
| 5867.00                                                                      | 15.53      | 152.24    | 5784.72        | 2593.72              | -343.22       | -577.29             | 344.13              | 501888.51           | 639426.93          | 0.36                   |          |
| 5961.00                                                                      | 14.58      | 152.25    | 5875.49        | 2684.49              | -354.56       | -598.90             | 355.50              | 501866.90           | 639438.30          | 1.01                   |          |
| 6056.00                                                                      | 13.65      | 151.71    | 5967.62        | 2776.62              | -365.41       | -619.35             | 366.38              | 501846.45           | 639449.18          | 0.99                   |          |
| 6151.00                                                                      | 14.26      | 156.43    | 6059.82        | 2868.82              | -375.37       | -639.95             | 376.37              | 501825.85           | 639459.17          | 1.36                   |          |
| 6245.00                                                                      | 15.87      | 157.77    | 6150.59        | 2959.59              | -384.82       | -662.46             | 385.87              | 501803.34           | 639468.67          | 1.75                   |          |
| 6340.00                                                                      | 16.53      | 157.99    | 6241.82        | 3050.82              | -394.77       | -687.01             | 395.84              | 501778.79           | 639478.64          | 0.70                   |          |
| 6433.00                                                                      | 16.54      | 153.99    | 6330.97        | 3139.97              | -405.49       | -711.18             | 406.61              | 501754.62           | 639489.41          | 1.22                   |          |
| 6528.00                                                                      | 16.21      | 152.49    | 6422.12        | 3231.12              | -417.51       | -735.09             | 418.66              | 501730.71           | 639501.46          | 0.56                   |          |
| 6623.00                                                                      | 15.45      | 152.94    | 6513.52        | 3322.52              | -429.35       | -758.12             | 430.55              | 501707.68           | 639513.35          | 0.81                   |          |
| 6717.00                                                                      | 15.43      | 153.81    | 6604.13        | 3413.13              | -440.53       | -780.49             | 441.76              | 501685.31           | 639524.56          | 0.25                   |          |
| 6811.00                                                                      | 15.23      | 153.63    | 6694.78        | 3503.78              | -451.50       | -802.77             | 452.76              | 501663.03           | 639535.56          | 0.22                   |          |
| 6906.00                                                                      | 15.00      | 154.10    | 6786.49        | 3595.49              | -462.38       | -825.01             | 463.68              | 501640.79           | 639546.48          | 0.27                   |          |
| 7001.00                                                                      | 14.32      | 154.65    | 6878.40        | 3687.40              | -472.74       | -846.69             | 474.08              | 501619.11           | 639556.88          | 0.73                   |          |
| 7096.00                                                                      | 14.25      | 154.87    | 6970.46        | 3779.46              | -482.71       | -867.89             | 484.07              | 501597.91           | 639566.87          | 0.09                   |          |
| 7191.00                                                                      | 14.69      | 154.78    | 7062.45        | 3871.45              | -492.77       | -889.37             | 494.17              | 501576.43           | 639576.97          | 0.46                   |          |
| 7285.00                                                                      | 14.59      | 155.44    | 7153.40        | 3962.40              | -502.74       | -910.92             | 504.17              | 501554.88           | 639586.97          | 0.21                   |          |
| 7380.00                                                                      | 14.43      | 155.50    | 7245.37        | 4054.37              | -512.58       | -932.58             | 514.05              | 501533.22           | 639596.85          | 0.17                   |          |
| 7475.00                                                                      | 13.84      | 155.97    | 7337.49        | 4146.49              | -522.09       | -953.73             | 523.59              | 501512.07           | 639606.39          | 0.63                   |          |
| 7570.00                                                                      | 13.75      | 155.38    | 7429.75        | 4238.75              | -531.39       | -974.37             | 532.92              | 501491.43           | 639615.72          | 0.18                   |          |
| 7665.00                                                                      | 14.77      | 157.11    | 7521.82        | 4330.82              | -540.77       | -995.79             | 542.33              | 501470.01           | 639625.13          | 1.16                   |          |
| 7759.00                                                                      | 13.57      | 154.91    | 7612.96        | 4421.96              | -550.07       | -1016.82            | 551.67              | 501448.98           | 639634.47          | 1.40                   |          |
| 7853.00                                                                      | 12.63      | 150.65    | 7704.52        | 4513.52              | -559.75       | -1035.76            | 561.38              | 501430.04           | 639644.18          | 1.43                   |          |
| 7948.00                                                                      | 11.61      | 146.85    | 7797.40        | 4606.40              | -570.05       | -1052.82            | 571.70              | 501412.98           | 639654.50          | 1.36                   |          |
| 8043.00                                                                      | 12.53      | 157.16    | 7890.31        | 4699.31              | -579.25       | -1070.32            | 580.93              | 501395.48           | 639663.73          | 2.46                   |          |
| 8137.00                                                                      | 12.12      | 157.95    | 7982.14        | 4791.14              | -586.88       | -1088.87            | 588.59              | 501376.93           | 639671.39          | 0.47                   |          |
| 8232.00                                                                      | 14.97      | 154.52    | 8074.49        | 4883.49              | -595.87       | -1109.19            | 597.62              | 501356.61           | 639680.42          | 3.12                   |          |
| 8327.00                                                                      | 15.68      | 153.16    | 8166.11        | 4975.11              | -606.91       | -1131.72            | 608.69              | 501334.08           | 639691.49          | 0.84                   |          |
| 8421.00                                                                      | 14.71      | 156.16    | 8256.83        | 5065.83              | -617.44       | -1153.97            | 619.25              | 501311.83           | 639702.05          | 1.33                   |          |
| 8517.00                                                                      | 12.62      | 155.74    | 8350.11        | 5159.11              | -626.64       | -1174.68            | 628.49              | 501291.12           | 639711.29          | 2.18                   |          |
| 8611.00                                                                      | 13.62      | 156.33    | 8441.65        | 5250.65              | -635.27       | -1194.18            | 637.15              | 501271.62           | 639719.95          | 1.07                   |          |

## 5D Survey Report

| Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |            |           |                |                      |               |                     |                     |                     |                    |                        | Comment |
|------------------------------------------------------------------------------|------------|-----------|----------------|----------------------|---------------|---------------------|---------------------|---------------------|--------------------|------------------------|---------|
| MD<br>(US ft)                                                                | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | TVD (MSL)<br>(US ft) | VS<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) | DLS<br>(°/100US<br>ft) |         |
| 8706.00                                                                      | 16.19      | 156.28    | 8533.45        | 5342.45              | -645.06       | -1216.56            | 646.97              | 501249.24           | 639729.77          | 2.71                   |         |
| 8765.00                                                                      | 16.01      | 156.39    | 8590.13        | 5399.13              | -651.60       | -1231.54            | 653.54              | 501234.26           | 639736.34          | 0.31                   |         |
| 8812.00                                                                      | 17.35      | 161.43    | 8635.16        | 5444.16              | -656.41       | -1244.13            | 658.36              | 501221.67           | 639741.16          | 4.19                   |         |
| 8860.00                                                                      | 22.37      | 171.76    | 8680.30        | 5489.30              | -659.98       | -1259.96            | 661.96              | 501205.84           | 639744.76          | 12.72                  |         |
| 8907.00                                                                      | 27.88      | 182.98    | 8722.86        | 5531.86              | -660.66       | -1279.82            | 662.67              | 501185.98           | 639745.47          | 15.45                  |         |
| 8955.00                                                                      | 33.41      | 189.55    | 8764.15        | 5573.15              | -657.84       | -1304.08            | 659.89              | 501161.72           | 639742.69          | 13.45                  |         |
| 9002.00                                                                      | 34.04      | 197.82    | 8803.26        | 5612.26              | -651.62       | -1329.38            | 653.71              | 501136.42           | 639736.51          | 9.85                   |         |
| 9050.00                                                                      | 34.77      | 202.29    | 8842.87        | 5651.87              | -642.28       | -1354.84            | 644.41              | 501110.96           | 639727.21          | 5.48                   |         |
| 9097.00                                                                      | 36.38      | 203.17    | 8881.10        | 5690.10              | -631.67       | -1380.06            | 633.84              | 501085.74           | 639716.64          | 3.59                   |         |
| 9144.00                                                                      | 39.09      | 205.78    | 8918.27        | 5727.27              | -619.70       | -1406.22            | 621.91              | 501059.58           | 639704.71          | 6.69                   |         |
| 9191.00                                                                      | 40.96      | 210.06    | 8954.27        | 5763.27              | -605.49       | -1432.90            | 607.74              | 501032.90           | 639690.54          | 7.08                   |         |
| 9240.00                                                                      | 43.08      | 214.50    | 8990.67        | 5799.67              | -587.92       | -1460.60            | 590.21              | 501005.20           | 639673.01          | 7.45                   |         |
| 9287.00                                                                      | 45.94      | 218.33    | 9024.19        | 5833.19              | -568.31       | -1487.09            | 570.64              | 500978.71           | 639653.44          | 8.34                   |         |
| 9335.00                                                                      | 48.95      | 222.48    | 9056.66        | 5865.66              | -545.33       | -1513.98            | 547.71              | 500951.82           | 639630.51          | 8.94                   |         |
| 9382.00                                                                      | 51.04      | 227.53    | 9086.88        | 5895.88              | -519.83       | -1539.40            | 522.25              | 500926.40           | 639605.05          | 9.35                   |         |
| 9429.00                                                                      | 53.15      | 231.78    | 9115.77        | 5924.77              | -491.53       | -1563.38            | 493.99              | 500902.42           | 639576.79          | 8.43                   |         |
| 9476.00                                                                      | 55.74      | 235.95    | 9143.10        | 5952.10              | -460.62       | -1585.90            | 463.11              | 500879.90           | 639545.91          | 9.08                   |         |
| 9524.00                                                                      | 58.56      | 239.72    | 9169.14        | 5978.14              | -426.45       | -1607.34            | 428.97              | 500858.46           | 639511.77          | 8.83                   |         |
| 9571.00                                                                      | 60.11      | 243.70    | 9193.12        | 6002.12              | -390.83       | -1626.49            | 393.38              | 500839.31           | 639476.18          | 7.99                   |         |
| 9618.00                                                                      | 63.68      | 247.07    | 9215.26        | 6024.26              | -353.11       | -1643.73            | 355.70              | 500822.07           | 639438.50          | 9.88                   |         |
| 9665.00                                                                      | 67.08      | 250.22    | 9234.84        | 6043.84              | -313.30       | -1659.27            | 315.91              | 500806.53           | 639398.71          | 9.46                   |         |
| 9713.00                                                                      | 69.79      | 252.62    | 9252.49        | 6061.49              | -270.97       | -1673.48            | 273.60              | 500792.32           | 639356.40          | 7.31                   |         |
| 9760.00                                                                      | 73.03      | 254.25    | 9267.47        | 6076.47              | -228.26       | -1686.17            | 230.91              | 500779.63           | 639313.71          | 7.64                   |         |
| 9808.00                                                                      | 77.37      | 255.41    | 9279.73        | 6088.73              | -183.46       | -1698.31            | 186.13              | 500767.49           | 639268.93          | 9.34                   |         |
| 9855.00                                                                      | 81.36      | 257.27    | 9288.40        | 6097.40              | -138.57       | -1709.21            | 141.25              | 500756.59           | 639224.05          | 9.34                   |         |
| 9903.00                                                                      | 83.83      | 259.97    | 9294.59        | 6103.59              | -91.90        | -1718.60            | 94.60               | 500747.20           | 639177.40          | 7.59                   |         |
| 9950.00                                                                      | 86.01      | 263.08    | 9298.75        | 6107.75              | -45.59        | -1725.50            | 48.30               | 500740.30           | 639131.10          | 8.06                   |         |
| 9997.00                                                                      | 88.74      | 266.61    | 9300.90        | 6109.90              | 1.17          | -1729.71            | 1.55                | 500736.09           | 639084.35          | 9.49                   |         |
| 10029.00                                                                     | 89.93      | 267.69    | 9301.27        | 6110.27              | 33.13         | -1731.30            | -30.41              | 500734.50           | 639052.39          | 5.02                   |         |
| 10092.00                                                                     | 91.33      | 267.97    | 9300.58        | 6109.58              | 96.08         | -1733.69            | -93.36              | 500732.11           | 638989.44          | 2.27                   |         |
| 10186.00                                                                     | 95.12      | 268.83    | 9295.29        | 6104.29              | 189.88        | -1736.31            | -187.15             | 500729.49           | 638895.65          | 4.13                   |         |
| 10281.00                                                                     | 90.07      | 267.09    | 9290.99        | 6099.99              | 284.69        | -1739.69            | -281.96             | 500726.11           | 638800.84          | 5.62                   |         |
| 10376.00                                                                     | 90.28      | 266.77    | 9290.70        | 6099.70              | 379.56        | -1744.78            | -376.82             | 500721.02           | 638705.98          | 0.40                   |         |
| 10470.00                                                                     | 91.68      | 267.53    | 9289.10        | 6098.10              | 473.44        | -1749.45            | -470.69             | 500716.35           | 638612.11          | 1.69                   |         |
| 10564.00                                                                     | 92.66      | 267.93    | 9285.54        | 6094.54              | 567.30        | -1753.17            | -564.55             | 500712.63           | 638518.25          | 1.13                   |         |
| 10658.00                                                                     | 90.70      | 267.02    | 9282.78        | 6091.78              | 661.17        | -1757.31            | -658.41             | 500708.49           | 638424.39          | 2.30                   |         |
| 10752.00                                                                     | 91.61      | 266.23    | 9280.89        | 6089.89              | 754.99        | -1762.84            | -752.23             | 500702.96           | 638330.57          | 1.28                   |         |
| 10847.00                                                                     | 93.36      | 266.09    | 9276.77        | 6085.77              | 849.70        | -1769.20            | -846.92             | 500696.60           | 638235.88          | 1.85                   |         |
| 10942.00                                                                     | 93.22      | 265.48    | 9271.32        | 6080.32              | 944.30        | -1776.17            | -941.51             | 500689.63           | 638141.29          | 0.66                   |         |
| 11036.00                                                                     | 91.82      | 266.09    | 9267.18        | 6076.18              | 1037.96       | -1783.07            | -1035.16            | 500682.73           | 638047.64          | 1.62                   |         |
| 11130.00                                                                     | 90.21      | 267.49    | 9265.52        | 6074.52              | 1131.80       | -1788.33            | -1128.99            | 500677.47           | 637953.81          | 2.27                   |         |
| 11224.00                                                                     | 90.14      | 269.56    | 9265.23        | 6074.23              | 1225.77       | -1790.75            | -1222.96            | 500675.05           | 637859.84          | 2.20                   |         |
| 11319.00                                                                     | 90.21      | 271.70    | 9264.94        | 6073.94              | 1320.75       | -1789.71            | -1317.94            | 500676.09           | 637764.86          | 2.25                   |         |
| 11414.00                                                                     | 92.10      | 271.98    | 9263.03        | 6072.03              | 1415.68       | -1786.66            | -1412.87            | 500679.14           | 637669.93          | 2.01                   |         |
| 11507.00                                                                     | 93.92      | 271.63    | 9258.14        | 6067.14              | 1508.49       | -1783.73            | -1505.69            | 500682.07           | 637577.11          | 1.99                   |         |
| 11601.00                                                                     | 92.94      | 272.45    | 9252.52        | 6061.52              | 1602.26       | -1780.39            | -1599.46            | 500685.41           | 637483.34          | 1.36                   |         |
| 11695.00                                                                     | 90.42      | 272.41    | 9249.76        | 6058.76              | 1696.12       | -1776.41            | -1693.33            | 500689.39           | 637389.47          | 2.68                   |         |
| 11822.00                                                                     | 90.14      | 272.11    | 9249.14        | 6058.14              | 1823.01       | -1771.40            | -1820.23            | 500694.40           | 637262.57          | 0.32                   |         |
| 11916.00                                                                     | 91.33      | 271.85    | 9247.94        | 6056.94              | 1916.94       | -1768.15            | -1914.16            | 500697.65           | 637168.64          | 1.30                   |         |
| 12011.00                                                                     | 91.82      | 271.04    | 9245.32        | 6054.32              | 2011.87       | -1765.76            | -2009.10            | 500700.04           | 637073.70          | 1.00                   |         |
| 12106.00                                                                     | 93.15      | 270.52    | 9241.21        | 6050.21              | 2106.77       | -1764.47            | -2104.00            | 500701.33           | 636978.80          | 1.50                   |         |
| 12200.00                                                                     | 91.12      | 269.83    | 9237.70        | 6046.70              | 2200.69       | -1764.18            | -2197.92            | 500701.62           | 636884.88          | 2.28                   |         |
| 12294.00                                                                     | 90.70      | 269.26    | 9236.21        | 6045.21              | 2294.68       | -1764.93            | -2291.91            | 500700.87           | 636790.89          | 0.75                   |         |
| 12388.00                                                                     | 91.05      | 269.00    | 9234.78        | 6043.78              | 2388.66       | -1766.35            | -2385.89            | 500699.45           | 636696.91          | 0.46                   |         |
| 12483.00                                                                     | 90.42      | 269.24    | 9233.56        | 6042.56              | 2483.64       | -1767.81            | -2480.87            | 500697.99           | 636601.93          | 0.71                   |         |
| 12577.00                                                                     | 89.93      | 268.67    | 9233.27        | 6042.27              | 2577.63       | -1769.53            | -2574.85            | 500696.27           | 636507.95          | 0.80                   |         |
| 12671.00                                                                     | 90.00      | 270.16    | 9233.33        | 6042.33              | 2671.62       | -1770.49            | -2668.84            | 500695.31           | 636413.96          | 1.59                   |         |
| 12765.00                                                                     | 90.70      | 271.20    | 9232.75        | 6041.75              | 2765.61       | -1769.37            | -2762.83            | 500696.43           | 636319.97          | 1.33                   |         |

## 5D Survey Report

| Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |            |           |                |                      |               |                     |                     |                     |                    |                        |         |
|------------------------------------------------------------------------------|------------|-----------|----------------|----------------------|---------------|---------------------|---------------------|---------------------|--------------------|------------------------|---------|
| MD<br>(US ft)                                                                | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | TVD (MSL)<br>(US ft) | VS<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) | DLS<br>(°/100US<br>ft) | Comment |
| 12860.00                                                                     | 90.56      | 270.83    | 9231.71        | 6040.71              | 2860.59       | -1767.69            | -2857.81            | 500698.11           | 636224.99          | 0.42                   |         |
| 12955.00                                                                     | 90.07      | 270.26    | 9231.19        | 6040.19              | 2955.58       | -1766.79            | -2952.81            | 500699.01           | 636129.99          | 0.79                   |         |
| 13050.00                                                                     | 89.02      | 268.93    | 9231.94        | 6040.94              | 3050.57       | -1767.46            | -3047.80            | 500698.34           | 636035.00          | 1.78                   |         |
| 13144.00                                                                     | 89.79      | 269.62    | 9232.92        | 6041.92              | 3144.56       | -1768.65            | -3141.78            | 500697.15           | 635941.02          | 1.10                   |         |
| 13239.00                                                                     | 88.67      | 269.85    | 9234.19        | 6043.19              | 3239.55       | -1769.09            | -3236.77            | 500696.71           | 635846.03          | 1.20                   |         |
| 13333.00                                                                     | 90.49      | 271.35    | 9234.88        | 6043.88              | 3333.53       | -1768.10            | -3330.76            | 500697.70           | 635752.04          | 2.51                   |         |
| 13428.00                                                                     | 91.12      | 270.78    | 9233.55        | 6042.55              | 3428.50       | -1766.34            | -3425.73            | 500699.46           | 635657.07          | 0.89                   |         |
| 13522.00                                                                     | 90.00      | 270.31    | 9232.63        | 6041.63              | 3522.49       | -1765.44            | -3519.72            | 500700.36           | 635563.08          | 1.29                   |         |
| 13617.00                                                                     | 90.70      | 270.20    | 9232.05        | 6041.05              | 3617.49       | -1765.02            | -3614.72            | 500700.78           | 635468.08          | 0.75                   |         |
| 13711.00                                                                     | 91.75      | 270.70    | 9230.04        | 6039.04              | 3711.46       | -1764.28            | -3708.69            | 500701.52           | 635374.11          | 1.24                   |         |
| 13807.00                                                                     | 91.33      | 269.79    | 9227.46        | 6036.46              | 3807.42       | -1763.87            | -3804.65            | 500701.93           | 635278.15          | 1.04                   |         |
| 13901.00                                                                     | 92.52      | 270.37    | 9224.30        | 6033.30              | 3901.37       | -1763.74            | -3898.60            | 500702.06           | 635184.20          | 1.41                   |         |
| 13996.00                                                                     | 92.45      | 272.41    | 9220.18        | 6029.18              | 3996.24       | -1761.44            | -3993.48            | 500704.36           | 635089.32          | 2.15                   |         |
| 14090.00                                                                     | 91.75      | 272.20    | 9216.74        | 6025.74              | 4090.09       | -1757.66            | -4087.34            | 500708.14           | 634995.46          | 0.78                   |         |
| 14184.00                                                                     | 91.40      | 272.28    | 9214.15        | 6023.15              | 4183.98       | -1753.99            | -4181.23            | 500711.81           | 634901.57          | 0.38                   |         |
| 14279.00                                                                     | 90.42      | 271.90    | 9212.65        | 6021.65              | 4278.90       | -1750.52            | -4276.15            | 500715.28           | 634806.65          | 1.11                   |         |
| 14373.00                                                                     | 91.47      | 272.39    | 9211.10        | 6020.10              | 4372.81       | -1747.00            | -4370.07            | 500718.80           | 634712.73          | 1.23                   |         |
| 14468.00                                                                     | 90.70      | 272.21    | 9209.30        | 6018.30              | 4467.71       | -1743.19            | -4464.98            | 500722.61           | 634617.82          | 0.83                   |         |
| 14563.00                                                                     | 89.93      | 271.54    | 9208.77        | 6017.77              | 4562.65       | -1740.08            | -4559.93            | 500725.72           | 634522.87          | 1.07                   |         |
| 14658.00                                                                     | 88.95      | 270.52    | 9209.70        | 6018.70              | 4657.63       | -1738.38            | -4654.90            | 500727.42           | 634427.90          | 1.49                   |         |
| 14752.00                                                                     | 88.53      | 268.60    | 9211.77        | 6020.77              | 4751.60       | -1739.10            | -4748.87            | 500726.70           | 634333.93          | 2.09                   |         |
| 14847.00                                                                     | 91.05      | 268.27    | 9212.12        | 6021.12              | 4846.56       | -1741.69            | -4843.83            | 500724.11           | 634238.97          | 2.68                   |         |
| 14941.00                                                                     | 96.73      | 267.75    | 9205.74        | 6014.74              | 4940.25       | -1744.95            | -4937.52            | 500720.85           | 634145.28          | 6.07                   |         |
| 15036.00                                                                     | 93.50      | 267.37    | 9197.27        | 6006.27              | 5034.78       | -1748.98            | -5032.04            | 500716.82           | 634050.76          | 3.42                   |         |
| 15130.00                                                                     | 92.10      | 266.63    | 9192.68        | 6001.68              | 5128.55       | -1753.89            | -5125.80            | 500711.91           | 633957.00          | 1.68                   |         |
| 15225.00                                                                     | 91.26      | 266.34    | 9189.90        | 5998.90              | 5223.33       | -1759.71            | -5220.58            | 500706.09           | 633862.22          | 0.94                   |         |
| 15319.00                                                                     | 90.21      | 267.33    | 9188.69        | 5997.69              | 5317.19       | -1764.90            | -5314.42            | 500700.90           | 633768.38          | 1.54                   |         |
| 15412.00                                                                     | 89.65      | 266.71    | 9188.81        | 5997.81              | 5410.07       | -1769.73            | -5407.30            | 500696.07           | 633675.50          | 0.90                   |         |
| 15506.00                                                                     | 89.65      | 268.06    | 9189.38        | 5998.38              | 5503.97       | -1774.02            | -5501.19            | 500691.78           | 633581.61          | 1.44                   |         |
| 15601.00                                                                     | 88.74      | 266.94    | 9190.71        | 5999.71              | 5598.88       | -1778.17            | -5596.09            | 500687.63           | 633486.71          | 1.52                   |         |
| 15695.00                                                                     | 90.28      | 267.80    | 9191.52        | 6000.52              | 5692.78       | -1782.48            | -5689.99            | 500683.32           | 633392.81          | 1.88                   |         |
| 15790.00                                                                     | 91.05      | 267.82    | 9190.42        | 5999.42              | 5787.71       | -1786.11            | -5784.91            | 500679.69           | 633297.89          | 0.81                   |         |
| 15885.00                                                                     | 90.42      | 268.59    | 9189.20        | 5998.20              | 5882.66       | -1789.08            | -5879.85            | 500676.72           | 633202.95          | 1.05                   |         |
| 15980.00                                                                     | 90.42      | 268.57    | 9188.50        | 5997.50              | 5977.63       | -1791.44            | -5974.82            | 500674.36           | 633107.98          | 0.02                   |         |
| 16074.00                                                                     | 94.83      | 270.87    | 9184.20        | 5993.20              | 6071.50       | -1791.90            | -6068.69            | 500673.90           | 633014.11          | 5.29                   |         |
| 16142.00                                                                     | 95.19      | 270.66    | 9178.26        | 5987.26              | 6139.23       | -1791.00            | -6136.43            | 500674.80           | 632946.37          | 0.61                   |         |
| 16237.00                                                                     | 94.38      | 273.19    | 9170.33        | 5979.33              | 6233.83       | -1787.82            | -6231.03            | 500677.98           | 632851.77          | 2.79                   |         |
| 16332.00                                                                     | 92.90      | 274.76    | 9164.30        | 5973.30              | 6328.40       | -1781.24            | -6325.61            | 500684.56           | 632757.19          | 2.27                   |         |
| 16427.00                                                                     | 91.42      | 274.62    | 9160.72        | 5969.72              | 6423.00       | -1773.48            | -6420.22            | 500692.32           | 632662.58          | 1.56                   |         |
| 16522.00                                                                     | 91.73      | 273.08    | 9158.11        | 5967.11              | 6517.73       | -1767.10            | -6514.97            | 500698.70           | 632567.83          | 1.65                   |         |
| 16617.00                                                                     | 91.11      | 273.34    | 9155.75        | 5964.75              | 6612.55       | -1761.79            | -6609.79            | 500704.01           | 632473.01          | 0.71                   |         |
| 16711.00                                                                     | 90.93      | 271.72    | 9154.08        | 5963.08              | 6706.43       | -1757.64            | -6703.68            | 500708.16           | 632379.12          | 1.73                   |         |
| 16806.00                                                                     | 90.86      | 268.77    | 9152.60        | 5961.60              | 6801.41       | -1757.23            | -6798.66            | 500708.57           | 632284.14          | 3.11                   |         |
| 16900.00                                                                     | 91.11      | 269.01    | 9150.98        | 5959.98              | 6895.38       | -1759.05            | -6892.62            | 500706.75           | 632190.18          | 0.37                   |         |
| 16995.00                                                                     | 90.25      | 267.68    | 9149.85        | 5958.85              | 6990.33       | -1761.80            | -6987.57            | 500704.00           | 632095.23          | 1.67                   |         |
| 17089.00                                                                     | 89.57      | 266.31    | 9150.00        | 5959.00              | 7084.21       | -1766.72            | -7081.44            | 500699.08           | 632001.36          | 1.63                   |         |
| 17184.00                                                                     | 87.90      | 264.67    | 9152.10        | 5961.10              | 7178.90       | -1774.19            | -7176.12            | 500691.61           | 631906.68          | 2.46                   |         |
| 17278.00                                                                     | 91.42      | 263.29    | 9152.66        | 5961.66              | 7272.37       | -1784.05            | -7269.58            | 500681.75           | 631813.22          | 4.02                   |         |
| 17374.00                                                                     | 91.91      | 267.21    | 9149.87        | 5958.87              | 7368.00       | -1791.99            | -7365.19            | 500673.81           | 631717.61          | 4.11                   |         |
| 17468.00                                                                     | 90.86      | 268.22    | 9147.59        | 5956.59              | 7461.90       | -1795.74            | -7459.09            | 500670.06           | 631623.71          | 1.55                   |         |
| 17564.00                                                                     | 89.51      | 267.55    | 9147.28        | 5956.28              | 7557.84       | -1799.28            | -7555.02            | 500666.52           | 631527.78          | 1.57                   |         |
| 17658.00                                                                     | 91.60      | 267.41    | 9146.37        | 5955.37              | 7651.74       | -1803.41            | -7648.92            | 500662.39           | 631433.88          | 2.23                   |         |
| 17753.00                                                                     | 92.10      | 270.00    | 9143.31        | 5952.31              | 7746.66       | -1805.56            | -7743.84            | 500660.24           | 631338.96          | 2.78                   |         |
| 17847.00                                                                     | 91.85      | 273.14    | 9140.07        | 5949.07              | 7840.56       | -1802.99            | -7837.73            | 500662.81           | 631245.07          | 3.35                   |         |
| 17941.00                                                                     | 92.47      | 274.04    | 9136.52        | 5945.52              | 7934.29       | -1797.11            | -7931.48            | 500668.69           | 631151.32          | 1.16                   |         |
| 18036.00                                                                     | 92.90      | 274.78    | 9132.07        | 5941.07              | 8028.90       | -1789.81            | -8026.09            | 500675.99           | 631056.71          | 0.90                   |         |
| 18130.00                                                                     | 92.84      | 273.93    | 9127.37        | 5936.37              | 8122.49       | -1782.68            | -8119.70            | 500683.12           | 630963.10          | 0.91                   |         |
| 18225.00                                                                     | 92.22      | 273.03    | 9123.17        | 5932.17              | 8217.22       | -1776.92            | -8214.44            | 500688.88           | 630868.36          | 1.15                   |         |

## 5D Survey Report

| Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |            |           |                |                      |               |                     |                     |                     |                    |                        |         |
|------------------------------------------------------------------------------|------------|-----------|----------------|----------------------|---------------|---------------------|---------------------|---------------------|--------------------|------------------------|---------|
| MD<br>(US ft)                                                                | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | TVD (MSL)<br>(US ft) | VS<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) | DLS<br>(°/100US<br>ft) | Comment |
| 18320.00                                                                     | 93.02      | 271.61    | 9118.83        | 5927.83              | 8312.03       | -1773.08            | -8309.26            | 500692.72           | 630773.54          | 1.71                   |         |
| 18414.00                                                                     | 91.79      | 270.96    | 9114.88        | 5923.88              | 8405.92       | -1770.97            | -8403.15            | 500694.83           | 630679.65          | 1.48                   |         |
| 18509.00                                                                     | 93.27      | 272.04    | 9110.69        | 5919.69              | 8500.78       | -1768.49            | -8498.02            | 500697.31           | 630584.78          | 1.93                   |         |
| 18604.00                                                                     | 90.80      | 271.70    | 9107.32        | 5916.32              | 8595.66       | -1765.39            | -8592.90            | 500700.41           | 630489.90          | 2.62                   |         |
| 18698.00                                                                     | 90.43      | 270.86    | 9106.31        | 5915.31              | 8689.63       | -1763.29            | -8686.87            | 500702.51           | 630395.93          | 0.98                   |         |
| 18792.00                                                                     | 91.73      | 269.73    | 9104.54        | 5913.54              | 8783.61       | -1762.81            | -8780.85            | 500702.99           | 630301.95          | 1.83                   |         |
| 18886.00                                                                     | 91.36      | 268.70    | 9102.00        | 5911.00              | 8877.56       | -1764.09            | -8874.80            | 500701.71           | 630208.00          | 1.16                   |         |
| 18981.00                                                                     | 91.85      | 268.42    | 9099.34        | 5908.34              | 8972.50       | -1766.48            | -8969.74            | 500699.32           | 630113.06          | 0.59                   |         |
| 19077.00                                                                     | 91.91      | 267.00    | 9096.19        | 5905.19              | 9068.37       | -1770.31            | -9065.61            | 500695.49           | 630017.19          | 1.48                   |         |
| 19171.00                                                                     | 92.28      | 267.26    | 9092.76        | 5901.76              | 9162.20       | -1775.02            | -9159.42            | 500690.78           | 629923.38          | 0.48                   |         |
| 19265.00                                                                     | 91.17      | 267.80    | 9089.93        | 5898.93              | 9256.08       | -1779.07            | -9253.29            | 500686.73           | 629829.51          | 1.31                   |         |
| 19360.00                                                                     | 92.16      | 267.68    | 9087.17        | 5896.17              | 9350.97       | -1782.81            | -9348.18            | 500682.99           | 629734.62          | 1.05                   |         |
| 19454.00                                                                     | 93.09      | 271.15    | 9082.86        | 5891.86              | 9444.85       | -1783.77            | -9442.06            | 500682.03           | 629640.74          | 3.82                   |         |
| 19549.00                                                                     | 92.28      | 273.72    | 9078.41        | 5887.41              | 9539.64       | -1779.74            | -9536.86            | 500686.06           | 629545.94          | 2.83                   |         |
| 19645.00                                                                     | 90.31      | 272.93    | 9076.24        | 5885.24              | 9635.44       | -1774.17            | -9632.67            | 500691.63           | 629450.13          | 2.21                   |         |
| 19739.00                                                                     | 90.25      | 270.76    | 9075.78        | 5884.78              | 9729.38       | -1771.15            | -9726.61            | 500694.65           | 629356.19          | 2.31                   |         |
| 19834.00                                                                     | 90.37      | 269.47    | 9075.27        | 5884.27              | 9824.38       | -1770.96            | -9821.61            | 500694.84           | 629261.19          | 1.36                   |         |
| 19928.00                                                                     | 90.49      | 269.68    | 9074.56        | 5883.56              | 9918.37       | -1771.65            | -9915.60            | 500694.15           | 629167.20          | 0.26                   |         |
| 20022.00                                                                     | 89.07      | 268.72    | 9074.92        | 5883.92              | 10012.36      | -1772.97            | -10009.59           | 500692.83           | 629073.21          | 1.82                   |         |
| 20116.00                                                                     | 87.41      | 268.29    | 9077.81        | 5886.81              | 10106.29      | -1775.42            | -10103.51           | 500690.38           | 628979.29          | 1.82                   |         |
| 20211.00                                                                     | 88.27      | 268.80    | 9081.39        | 5890.39              | 10201.19      | -1777.83            | -10198.41           | 500687.97           | 628884.39          | 1.05                   |         |
| 20306.00                                                                     | 90.86      | 269.39    | 9082.11        | 5891.11              | 10296.17      | -1779.33            | -10293.39           | 500686.47           | 628789.41          | 2.80                   |         |
| 20400.00                                                                     | 92.16      | 270.14    | 9079.63        | 5888.63              | 10390.13      | -1779.71            | -10387.35           | 500686.09           | 628695.45          | 1.60                   |         |
| 20494.00                                                                     | 92.35      | 270.82    | 9075.93        | 5884.93              | 10484.06      | -1778.93            | -10481.28           | 500686.87           | 628601.52          | 0.75                   |         |
| 20589.00                                                                     | 92.10      | 271.34    | 9072.25        | 5881.25              | 10578.97      | -1777.14            | -10576.19           | 500688.66           | 628506.61          | 0.61                   |         |
| 20684.00                                                                     | 91.23      | 271.53    | 9069.49        | 5878.49              | 10673.89      | -1774.76            | -10671.12           | 500691.04           | 628411.68          | 0.94                   |         |
| 20778.00                                                                     | 91.48      | 271.60    | 9067.26        | 5876.26              | 10767.82      | -1772.19            | -10765.05           | 500693.61           | 628317.75          | 0.28                   |         |
| 20872.00                                                                     | 91.60      | 272.56    | 9064.74        | 5873.74              | 10861.72      | -1768.78            | -10858.96           | 500697.02           | 628223.84          | 1.03                   |         |
| 20967.00                                                                     | 91.67      | 272.87    | 9062.03        | 5871.03              | 10956.57      | -1764.28            | -10953.81           | 500701.52           | 628128.99          | 0.33                   |         |
| 21061.00                                                                     | 91.36      | 271.58    | 9059.54        | 5868.54              | 11050.46      | -1760.64            | -11047.71           | 500705.16           | 628035.09          | 1.41                   |         |
| 21156.00                                                                     | 91.42      | 270.56    | 9057.24        | 5866.24              | 11145.41      | -1758.86            | -11142.66           | 500706.94           | 627940.14          | 1.08                   |         |
| 21250.00                                                                     | 91.36      | 269.33    | 9054.96        | 5863.96              | 11239.38      | -1758.95            | -11236.63           | 500706.85           | 627846.17          | 1.31                   |         |
| 21345.00                                                                     | 92.04      | 268.97    | 9052.14        | 5861.14              | 11334.33      | -1760.36            | -11331.58           | 500705.44           | 627751.22          | 0.81                   |         |
| 21439.00                                                                     | 91.73      | 268.85    | 9049.05        | 5858.05              | 11428.26      | -1762.15            | -11425.51           | 500703.65           | 627657.29          | 0.35                   |         |
| 21534.00                                                                     | 90.25      | 268.49    | 9047.40        | 5856.40              | 11523.22      | -1764.35            | -11520.47           | 500701.45           | 627562.33          | 1.60                   |         |
| 21628.00                                                                     | 90.49      | 267.63    | 9046.80        | 5855.80              | 11617.17      | -1767.53            | -11614.41           | 500698.27           | 627468.39          | 0.95                   |         |
| 21722.00                                                                     | 93.64      | 270.29    | 9043.41        | 5852.41              | 11711.08      | -1769.24            | -11708.31           | 500696.56           | 627374.49          | 4.38                   |         |
| 21816.00                                                                     | 90.68      | 270.02    | 9039.87        | 5848.87              | 11805.00      | -1768.99            | -11802.24           | 500696.81           | 627280.56          | 3.16                   |         |
| 21911.00                                                                     | 90.56      | 269.62    | 9038.84        | 5847.84              | 11899.99      | -1769.29            | -11897.23           | 500696.51           | 627185.57          | 0.44                   |         |
| 22005.00                                                                     | 90.49      | 268.56    | 9037.98        | 5846.98              | 11993.98      | -1770.78            | -11991.21           | 500695.02           | 627091.59          | 1.13                   |         |
| 22099.00                                                                     | 90.31      | 268.09    | 9037.32        | 5846.32              | 12087.94      | -1773.53            | -12085.17           | 500692.27           | 626997.63          | 0.54                   |         |
| 22195.00                                                                     | 90.31      | 268.84    | 9036.80        | 5845.80              | 12183.91      | -1776.10            | -12181.13           | 500689.70           | 626901.67          | 0.78                   |         |
| 22289.00                                                                     | 90.49      | 269.90    | 9036.15        | 5845.15              | 12277.90      | -1777.13            | -12275.12           | 500688.67           | 626807.68          | 1.14                   |         |
| 22384.00                                                                     | 90.62      | 270.14    | 9035.23        | 5844.23              | 12372.90      | -1777.10            | -12370.12           | 500688.70           | 626712.68          | 0.29                   |         |
| 22478.00                                                                     | 90.62      | 269.57    | 9034.21        | 5843.21              | 12466.89      | -1777.34            | -12464.11           | 500688.46           | 626618.69          | 0.61                   |         |
| 22572.00                                                                     | 90.62      | 269.18    | 9033.19        | 5842.19              | 12560.88      | -1778.36            | -12558.10           | 500687.44           | 626524.70          | 0.41                   |         |
| 22666.00                                                                     | 90.56      | 268.88    | 9032.22        | 5841.22              | 12654.86      | -1779.95            | -12652.08           | 500685.85           | 626430.72          | 0.33                   |         |
| 22761.00                                                                     | 90.68      | 268.75    | 9031.20        | 5840.20              | 12749.84      | -1781.92            | -12747.06           | 500683.88           | 626335.74          | 0.19                   |         |
| 22855.00                                                                     | 90.62      | 269.00    | 9030.13        | 5839.13              | 12843.82      | -1783.76            | -12841.03           | 500682.04           | 626241.77          | 0.27                   |         |
| 22950.00                                                                     | 90.43      | 268.52    | 9029.26        | 5838.26              | 12938.80      | -1785.82            | -12936.01           | 500679.98           | 626146.79          | 0.54                   |         |
| 23044.00                                                                     | 90.62      | 268.26    | 9028.40        | 5837.40              | 13032.76      | -1788.46            | -13029.97           | 500677.34           | 626052.83          | 0.34                   |         |
| 23139.00                                                                     | 90.68      | 268.37    | 9027.32        | 5836.32              | 13127.72      | -1791.25            | -13124.92           | 500674.55           | 625957.88          | 0.13                   |         |
| 23234.00                                                                     | 91.11      | 268.39    | 9025.84        | 5834.84              | 13222.67      | -1793.94            | -13219.87           | 500671.86           | 625862.93          | 0.45                   |         |
| 23328.00                                                                     | 91.17      | 268.68    | 9023.97        | 5832.97              | 13316.62      | -1796.34            | -13313.82           | 500669.46           | 625768.98          | 0.31                   |         |
| 23423.00                                                                     | 90.99      | 269.08    | 9022.18        | 5831.18              | 13411.59      | -1798.20            | -13408.78           | 500667.60           | 625674.02          | 0.46                   |         |
| 23518.00                                                                     | 91.17      | 269.62    | 9020.38        | 5829.38              | 13506.57      | -1799.27            | -13503.76           | 500666.53           | 625579.04          | 0.60                   |         |
| 23613.00                                                                     | 91.05      | 270.16    | 9018.54        | 5827.54              | 13601.55      | -1799.46            | -13598.74           | 500666.34           | 625484.06          | 0.58                   |         |
| 23707.00                                                                     | 91.05      | 270.54    | 9016.82        | 5825.82              | 13695.53      | -1798.88            | -13692.72           | 500666.92           | 625390.08          | 0.40                   |         |

## 5D Survey Report

| Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |            |           |                |                      |               |                     |                     |                     |                    |                        |                 |
|------------------------------------------------------------------------------|------------|-----------|----------------|----------------------|---------------|---------------------|---------------------|---------------------|--------------------|------------------------|-----------------|
| MD<br>(US ft)                                                                | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | TVD (MSL)<br>(US ft) | VS<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) | DLS<br>(°/100US<br>ft) | Comment         |
| 23801.00                                                                     | 91.11      | 270.63    | 9015.05        | 5824.05              | 13789.51      | -1797.92            | -13786.70           | 500667.88           | 625296.10          | 0.12                   |                 |
| 23896.00                                                                     | 91.23      | 271.23    | 9013.11        | 5822.11              | 13884.47      | -1796.38            | -13881.67           | 500669.42           | 625201.13          | 0.64                   |                 |
| 23990.00                                                                     | 91.05      | 271.67    | 9011.24        | 5820.24              | 13978.42      | -1794.00            | -13975.62           | 500671.80           | 625107.18          | 0.51                   |                 |
| 24084.00                                                                     | 91.17      | 271.89    | 9009.42        | 5818.42              | 14072.35      | -1791.08            | -14069.56           | 500674.72           | 625013.24          | 0.27                   |                 |
| 24178.00                                                                     | 91.17      | 271.90    | 9007.50        | 5816.50              | 14166.28      | -1787.98            | -14163.49           | 500677.82           | 624919.31          | 0.01                   |                 |
| 24270.00                                                                     | 91.11      | 272.16    | 9005.67        | 5814.67              | 14258.20      | -1784.72            | -14255.41           | 500681.08           | 624827.39          | 0.29                   | Last WFT<br>SVY |
| 24300.00                                                                     | 91.11      | 272.16    | 9005.09        | 5814.09              | 14288.17      | -1783.59            | -14285.38           | 500682.21           | 624797.42          | 0.00                   | PTB             |

| Formation Points: (Relative to Slot centre)(TVD relative to Well TVD Reference) |               |            |           |                |                      |                     |                     |                     |                    |  |
|---------------------------------------------------------------------------------|---------------|------------|-----------|----------------|----------------------|---------------------|---------------------|---------------------|--------------------|--|
| Name                                                                            | MD<br>(US ft) | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | TVD (MSL)<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) |  |
| Rustler                                                                         | 151.00        | 0.53       | 279.51    | 151.00         | -3040.00             | 0.30                | -0.50               | 502466.10           | 639082.30          |  |
| Magenta<br>Dolomite                                                             | 226.01        | 0.94       | 265.13    | 226.00         | -2965.00             | 0.31                | -1.48               | 502466.11           | 639081.32          |  |
| Salado                                                                          | 482.07        | 0.44       | 220.02    | 482.00         | -2709.00             | -0.77               | -6.75               | 502465.03           | 639076.05          |  |
| Top of Salt                                                                     | 504.07        | 0.29       | 156.91    | 504.00         | -2687.00             | -0.90               | -6.78               | 502464.90           | 639076.02          |  |
| Base Salt                                                                       | 3277.02       | 7.84       | 160.68    | 3273.00        | 82.00                | -24.72              | 62.61               | 502441.08           | 639145.41          |  |
| Delaware/Lam<br>ar                                                              | 3565.92       | 8.27       | 152.72    | 3559.00        | 368.00               | -62.17              | 78.69               | 502403.63           | 639161.49          |  |
| Bell Canyon                                                                     | 3581.07       | 8.28       | 152.37    | 3574.00        | 383.00               | -64.11              | 79.70               | 502401.69           | 639162.50          |  |
| Cherry Canyon                                                                   | 4484.75       | 14.73      | 149.93    | 4452.00        | 1261.00              | -250.77             | 178.06              | 502215.03           | 639260.86          |  |
| Manzanita<br>Marker                                                             | 4688.26       | 16.20      | 151.87    | 4648.00        | 1457.00              | -298.68             | 204.56              | 502167.12           | 639287.36          |  |
| Brushy Canyon<br>Ss.                                                            | 5848.60       | 15.59      | 152.32    | 5767.00        | 2576.00              | -572.92             | 341.84              | 501892.88           | 639424.64          |  |
| Basal Brushy<br>Canyon Ss.                                                      | 7221.55       | 14.66      | 154.99    | 7092.00        | 3901.00              | -896.38             | 497.45              | 501569.42           | 639580.25          |  |
| Bone Spring<br>Lm.                                                              | 7511.57       | 13.81      | 155.74    | 7373.00        | 4182.00              | -961.70             | 527.16              | 501504.10           | 639609.96          |  |
| Avalon Ss.                                                                      | 7566.14       | 13.75      | 155.40    | 7426.00        | 4235.00              | -973.53             | 532.53              | 501492.27           | 639615.33          |  |
| Upper Avalon<br>Carb.                                                           | 7776.52       | 13.39      | 154.16    | 7630.00        | 4439.00              | -1020.50            | 553.42              | 501445.30           | 639636.22          |  |
| Upper Avalon<br>Sh.                                                             | 7862.72       | 12.52      | 150.29    | 7714.00        | 4523.00              | -1037.60            | 562.42              | 501428.20           | 639645.22          |  |
| Lw. Avalon<br>Carb.                                                             | 8105.14       | 12.26      | 157.68    | 7951.00        | 4760.00              | -1082.64            | 586.05              | 501383.16           | 639668.85          |  |
| Lw. Avalon Sh.                                                                  | 8105.14       | 12.26      | 157.68    | 7951.00        | 4760.00              | -1082.64            | 586.05              | 501383.16           | 639668.85          |  |
| Bone Spring<br>Carb.                                                            | 8308.19       | 15.54      | 153.42    | 8148.00        | 4957.00              | -1127.20            | 606.42              | 501338.60           | 639689.22          |  |
| First Bone<br>Spring Ss.                                                        | 8542.52       | 12.89      | 155.91    | 8375.00        | 5184.00              | -1179.83            | 630.79              | 501285.97           | 639713.59          |  |
| Second Bone<br>Spring Carb.                                                     | 8925.44       | 29.96      | 185.76    | 8739.00        | 5548.00              | -1288.71            | 661.98              | 501177.09           | 639744.78          |  |
| Second Bone<br>Spring A Ss.                                                     | 9537.23       | 58.98      | 240.85    | 9176.00        | 5985.00              | -1612.95            | 419.15              | 500852.85           | 639501.95          |  |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
***Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***5. Lease Serial No.  
NMNM06808

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
NMNM70965X8. Well Name and No.  
JAMES RANCH UNIT D11 BS2A-5W 210H9. API Well No.  
30-015-4539810. Field and Pool or Exploratory Area  
WC G-07 S223021G;BONE SPR11. County or Parish, State  
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

XTO PERMIAN OPERATING, LLC

Contact: TRACIE J CHERRY

E-Mail: tracie\_cherry@xtoenergy.com

3a. Address

6401 HOLIDAY HILL RD BLDG 5  
MIDLAND, TX 79707

3b. Phone No. (include area code)

Ph: 432-221-7379

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 21 T22S R30E Mer NMP SWNE 1542FNL 1761FEL

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                                |                                               |                                                    |                                           |
|-------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen               | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Hydraulic Fracturing | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction     | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|                                                       | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input type="checkbox"/> Temporarily Abandon       | Drilling Operations                       |
|                                                       | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back            | <input type="checkbox"/> Water Disposal            |                                           |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO Permian Operating LLC respectfully submits this sundry notice to report drilling operations on the referenced well.

04/24/19

Spud 17-1/2" hole

04/25/19 ? 04/26/19

TD hole @ 424'. Run 13-3/8" J55, 54.5# csg to 424'. Cmt w/945 sx (229 bbls) Class C cmt, 1.36 yield. Bump plug. No returns to surface throughout job. WOC 8.5 hrs. Notify BLM of intent to run temp survey. Notify BLM est TOC 150. Top out, pump 200 sx (47 bbls), 1.33 yield Neat cmt. No cmt to surf. WOC. Pump 68 sx (16 bbls), 1.33 yield, Neat cmt, circulate to surface. WOC

*do not submit unapproved or approved sundry notices with C-104 packets ab*

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #520188 verified by the BLM Well Information System  
For XTO PERMIAN OPERATING, LLC, sent to the Carlsbad**

Name (Printed/Typed) TRACIE J CHERRY

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 06/24/2020

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

## **Additional data for EC transaction #520188 that would not fit on the form**

### **32. Additional remarks, continued**

04/26/19

Test BOP 250 low/10,000 high, hydril 250 low/3500 high, rams, wing vlves, choke 250 low / 10,000 high & floor valves, test back to pumps 250 low/5000 high.  
Test csg to 1500 psi for 30 min (good)

04/27/19

Drill cmt and float equipment. Drill 12-1/4" hole.

04/29/19 - 04/30/19

TD hole @ 3497'. Run 9-5/8" 40# J55/HCL80 csg to 3487'. Cmt LEAD: w/1035 sx (347 bbls) EconoCem HLC, yield 1.88. TAIL: 350 sx (84 bbls) EconoCem-C cmt, yield 1.34. Bump plug. Full returns, no cmt to surface. WOC. Run temp log. TOC 9' below GL.

05/01/19 - 05/18/19

Test csg to 1500 psi for 30 min (good). Drill cmt and float collar. Drill 8-3/4" hole.

05/19/19

TD hole @ 16,134". Change bits, drill 8-1/2" hole

05/27/19

Test annular 250 low/3500 high. Upper & lower pipe rams 250 low/10,000 high, choke 250 low/10,000 high, choke valves 250 low/10000 high, pumps 250 low/ 5000 high. Drill ahead with 8-1/2" hole

06/03/19

TD hole @ 24,300' MD/9006' TVD. KOP: 8800'

06/06/19 ? 06/13/19

Run 5-1/2" CYP110 20# csg to 24,300'. Cmt LEAD: 855 sx (417 bbls) Neocem-TL, yield 2.737. TAIL: 3445 sx (884 bbls) Neocem-TL, yield 1.441. Bump plug. Circulated 175 bbls (359 sx) cmt to surface. Full returns through job.  
Release rig.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
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6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
NMNM70965X8. Well Name and No.  
JAMES RANCH UNIT D11 BS2A-5W 210H9. API Well No.  
30-015-4539810. Field and Pool or Exploratory Area  
WC G-07 S223021G;BONE SPR11. County or Parish, State  
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

XTO PERMIAN OPERATING, LLC

Contact: TRACIE J CHERRY

E-Mail: tracie\_cherry@xtoenergy.com

3a. Address

6401 HOLIDAY HILL RD BLDG 5  
MIDLAND, TX 79707

3b. Phone No. (include area code)

Ph: 432-221-7379

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 21 T22S R30E Mer NMP SWNE 1542FNL 1761FEL

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                                |                                               |                                                    |                                           |  |
|-------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------------|-------------------------------------------|--|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen               | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |  |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Hydraulic Fracturing | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |  |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction     | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |  |
|                                                       | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input type="checkbox"/> Temporarily Abandon       | Production Start-up                       |  |
|                                                       | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back            | <input type="checkbox"/> Water Disposal            |                                           |  |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO Permian Operating LLC respectfully submits this sundry notice to report completion operations on the referenced well.

01/13/20

MIRU wireline and run RCBL 9908' to surf.

01/27/20

Test casing to 7600 psi, hold and chart for 30 min (good). Walk pressure up, open toe sleeve @ 24,201'.

02/09/20 ? 03/22/20

Perf interval 9927'-24,162', 4 SPF (1720 holes). Frac entire interval 24,201'-9927' using 702,413

*do not submit unapproved or approved sundry notices with C-104 packets  
ab*

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #520226 verified by the BLM Well Information System  
For XTO PERMIAN OPERATING, LLC, sent to the Carlsbad**

Name (Printed/Typed) TRACIE J CHERRY

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 06/25/2020

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

|                                                                                                                                                                                                                                                           |              |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|
| Approved By _____                                                                                                                                                                                                                                         | Title _____  | Date _____ |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | Office _____ |            |

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(Instructions on page 2)

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

## **Additional data for EC transaction #520226 that would not fit on the form**

### **32. Additional remarks, continued**

bbls total fluid and 34,983,060# total propanol across 72 stages.

03/31/20 - 04/04/20

MIRU coiled tbg. Drill out plugs.

04/14/20

RIH set pkr @ 8765?

04/26/20

Run 2-7/8? L80 tbg. Tag pkr space out

04/30/20

Break disk. WO flowback

06/21/20

Turn well to flowback