



# Weatherford<sup>®</sup>

Evaluation, Drilling & Intervention  
10000 West County Rd. 116  
P.O. Box 61028  
Midland, TX USA 79711  
Tel. (432) 561-8892 Fax (432) 561-8895

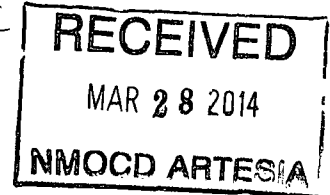
Devon Energy  
333 W. Sherridan Ave  
Oklahoma City, OK, 73102

Date: November 19, 2013

Attention: Art Alarcon

Re: Devon Energy  
Well: Cotton Draw Unit 220H  
Eddy County, New Mexico

30-015-41364



Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

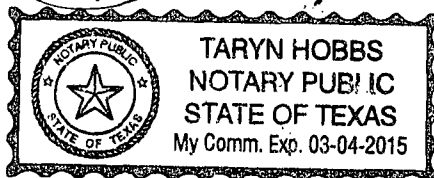
| Name & Title<br>Of Surveyor   | Well<br>Number | Surveyed<br>Depths  | Dates<br>Performed       | Type of<br>Survey             |
|-------------------------------|----------------|---------------------|--------------------------|-------------------------------|
| Brent Tyler<br>MWD Supervisor | 220H           | 4367 MD<br>14905 MD | 10/28/2013<br>11/18/2013 | Measurement<br>While Drilling |

A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesus Aguilar  
MWD Coordinator

On this, the 20<sup>th</sup> day of November 20 13, before me a notary public, the undersigned officer, personally appeared JESUS AGUILAR, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.





# Weatherford

## WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy Date: 11/18/2013 Time: 05:27:25 Page: 1  
Field: Eddy Co., NM (NAD'83) Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North  
Site: Cotton Draw Unit 220H Vertical (TVD) Reference: SITE 3477.0  
Well: Cotton Draw Unit 220H Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)  
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Wft Svy Start Date: 10/31/2013  
Company: Weatherford Engineer: Russell W. Joyner  
Tool: MWD/MWD - Standard Tied-to: User Defined

Site: Cotton Draw Unit 220H

Site Position: Northing: 419773.72 ft Latitude: 32 9 9.575 N  
From: Map Easting: 723868.17 ft Longitude: 103 44 36.715 W  
Position Uncertainty: 0.00 ft North Reference: Grid  
Ground Level: 3452.00 ft Grid Convergence: 0.31 deg

Well: Cotton Draw Unit 220H Slot Name:  
Well Position: +N/-S 0.00 ft Northing: 419773.72 ft Latitude: 32 9 9.575 N  
+E/-W 0.00 ft Easting: 723868.17 ft Longitude: 103 44 36.715 W  
Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface  
Current Datum: SITE Height 3477.00 ft Tie-on Depth: 0.00 ft  
Magnetic Data: 11/1/2013 Above System Datum: Mean Sea Level  
Field Strength: 48342 nT Declination: 7.37 deg  
Vertical Section: Depth From (TVD) +N/-S Mag Dip Angle: 60.03 deg  
ft ft ft deg  
0.00 0.00 0.00 0.00

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | VS<br>ft | MapN<br>ft | MapE<br>ft | Comment                     |
|----------|-------------|-------------|-----------|-----------|-----------|------------------|----------|------------|------------|-----------------------------|
| 4118.00  | 4.35        | 132.34      | 4116.79   | -42.34    | 30.45     | 0.00             | -42.34   | 419731.38  | 723898.62  | Tie On VES<br>First Wft Svy |
| 4367.00  | 5.17        | 127.21      | 4364.93   | -55.49    | 46.37     | 0.37             | -55.49   | 419718.23  | 723914.54  |                             |
| 4462.00  | 6.10        | 109.86      | 4459.48   | -59.79    | 54.52     | 2.03             | -59.79   | 419713.93  | 723922.69  |                             |
| 4556.00  | 5.88        | 96.52       | 4552.97   | -62.03    | 64.00     | 1.50             | -62.03   | 419711.69  | 723932.17  |                             |
| 4651.00  | 5.70        | 95.19       | 4647.49   | -63.01    | 73.54     | 0.24             | -63.01   | 419710.71  | 723941.71  |                             |
| 4745.00  | 5.55        | 95.18       | 4741.03   | -63.84    | 82.71     | 0.16             | -63.84   | 419709.88  | 723950.88  |                             |
| 4840.00  | 5.40        | 95.90       | 4835.60   | -64.72    | 91.73     | 0.17             | -64.72   | 419709.00  | 723959.90  |                             |
| 4934.00  | 5.19        | 95.28       | 4929.20   | -65.56    | 100.37    | 0.23             | -65.56   | 419708.16  | 723968.54  |                             |
| 5029.00  | 5.84        | 100.47      | 5023.76   | -66.84    | 109.40    | 0.86             | -66.84   | 419706.88  | 723977.57  |                             |
| 5124.00  | 5.69        | 98.60       | 5118.28   | -68.42    | 118.81    | 0.25             | -68.42   | 419705.30  | 723986.98  |                             |
| 5218.00  | 5.74        | 100.11      | 5211.81   | -69.94    | 128.04    | 0.17             | -69.94   | 419703.78  | 723996.21  |                             |
| 5313.00  | 5.74        | 100.41      | 5306.33   | -71.63    | 137.39    | 0.03             | -71.63   | 419702.09  | 724005.56  |                             |
| 5407.00  | 5.34        | 99.78       | 5399.90   | -73.23    | 146.33    | 0.43             | -73.23   | 419700.49  | 724014.50  |                             |
| 5502.00  | 5.20        | 99.67       | 5494.49   | -74.70    | 154.93    | 0.15             | -74.70   | 419699.02  | 724023.10  |                             |
| 5596.00  | 6.19        | 99.99       | 5588.03   | -76.30    | 164.12    | 1.05             | -76.30   | 419697.42  | 724032.29  |                             |
| 5690.00  | 6.22        | 99.46       | 5681.48   | -78.01    | 174.13    | 0.07             | -78.01   | 419695.71  | 724042.30  |                             |
| 5785.00  | 6.13        | 98.57       | 5775.93   | -79.61    | 184.22    | 0.14             | -79.61   | 419694.11  | 724052.39  |                             |
| 5879.00  | 5.81        | 98.10       | 5869.42   | -81.03    | 193.90    | 0.34             | -81.03   | 419692.69  | 724062.07  |                             |
| 5974.00  | 5.72        | 99.72       | 5963.94   | -82.51    | 203.32    | 0.20             | -82.51   | 419691.21  | 724071.49  |                             |
| 6068.00  | 5.58        | 99.31       | 6057.48   | -84.04    | 212.45    | 0.16             | -84.04   | 419689.68  | 724080.62  |                             |
| 6163.00  | 5.44        | 99.48       | 6152.04   | -85.53    | 221.45    | 0.15             | -85.53   | 419688.19  | 724089.62  |                             |
| 6258.00  | 5.19        | 100.53      | 6246.63   | -87.05    | 230.12    | 0.28             | -87.05   | 419686.67  | 724098.29  |                             |
| 6353.00  | 5.94        | 96.20       | 6341.18   | -88.37    | 239.23    | 0.90             | -88.37   | 419685.35  | 724107.40  |                             |
| 6448.00  | 6.19        | 100.72      | 6435.65   | -89.85    | 249.15    | 0.57             | -89.85   | 419683.87  | 724117.32  |                             |
| 6543.00  | 6.28        | 102.08      | 6530.09   | -91.89    | 259.26    | 0.18             | -91.89   | 419681.83  | 724127.43  |                             |
| 6637.00  | 5.95        | 102.40      | 6623.56   | -94.02    | 269.05    | 0.35             | -94.02   | 419679.70  | 724137.22  |                             |
| 6732.00  | 5.93        | 102.77      | 6718.05   | -96.16    | 278.64    | 0.05             | -96.16   | 419677.56  | 724146.81  |                             |
| 6827.00  | 5.42        | 102.86      | 6812.58   | -98.24    | 287.80    | 0.54             | -98.24   | 419675.48  | 724155.97  |                             |
| 6922.00  | 5.16        | 102.99      | 6907.18   | -100.20   | 296.34    | 0.27             | -100.20  | 419673.52  | 724164.51  |                             |
| 7016.00  | 6.25        | 99.34       | 7000.71   | -101.98   | 305.51    | 1.22             | -101.98  | 419671.74  | 724173.68  |                             |



# Weatherford

## WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy  
Field: Eddy Co., NM (NAD 83)  
Site: Cotton Draw Unit 220H  
Well: Cotton Draw Unit 220H  
Wellpath: 1

Date: 11/18/2013 Time: 05:27:25 Page: 2  
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H; Grid North  
Vertical (TVD) Reference: SITE 3477.0  
Section (VS) Reference: Well (0.00N,0.00E,0.00Az)  
Survey Calculation Method: Minimum Curvature Db: Sybase

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | VS<br>ft | MapN<br>ft | MapE<br>ft | Comment |
|----------|-------------|-------------|-----------|-----------|-----------|------------------|----------|------------|------------|---------|
| 7111.00  | 6.13        | 98.00       | 7095.16   | -103.53   | 315.63    | 0.20             | -103.53  | 419670.19  | 724183.80  |         |
| 7206.00  | 5.99        | 99.14       | 7189.62   | -105.02   | 325.55    | 0.19             | -105.02  | 419668.70  | 724193.72  |         |
| 7300.00  | 5.94        | 99.96       | 7283.12   | -106.64   | 335.18    | 0.11             | -106.64  | 419667.08  | 724203.35  |         |
| 7394.00  | 5.56        | 100.31      | 7376.64   | -108.30   | 344.45    | 0.41             | -108.30  | 419665.42  | 724212.62  |         |
| 7489.00  | 5.52        | 101.30      | 7471.20   | -110.02   | 353.46    | 0.11             | -110.02  | 419663.70  | 724221.63  |         |
| 7584.00  | 5.47        | 102.28      | 7565.76   | -111.87   | 362.37    | 0.11             | -111.87  | 419661.85  | 724230.54  |         |
| 7678.00  | 5.35        | 102.82      | 7659.34   | -113.80   | 371.02    | 0.14             | -113.80  | 419659.92  | 724239.19  |         |
| 7773.00  | 5.47        | 97.81       | 7753.92   | -115.40   | 379.82    | 0.51             | -115.40  | 419658.32  | 724247.99  |         |
| 7868.00  | 5.25        | 98.27       | 7848.51   | -116.64   | 388.61    | 0.24             | -116.64  | 419657.08  | 724256.78  |         |
| 7963.00  | 5.84        | 96.97       | 7943.06   | -117.85   | 397.71    | 0.63             | -117.85  | 419655.87  | 724265.88  |         |
| 8058.00  | 5.62        | 97.40       | 8037.59   | -119.04   | 407.12    | 0.24             | -119.04  | 419654.68  | 724275.29  |         |
| 8153.00  | 5.20        | 98.89       | 8132.16   | -120.30   | 415.98    | 0.47             | -120.30  | 419653.42  | 724284.15  |         |
| 8247.00  | 5.85        | 93.50       | 8225.73   | -121.25   | 424.97    | 0.88             | -121.25  | 419652.47  | 724293.14  |         |
| 8341.00  | 5.32        | 94.77       | 8319.28   | -121.91   | 434.10    | 0.58             | -121.91  | 419651.81  | 724302.27  |         |
| 8436.00  | 5.02        | 96.88       | 8413.89   | -122.77   | 442.61    | 0.37             | -122.77  | 419650.95  | 724310.78  |         |
| 8531.00  | 4.99        | 94.67       | 8508.53   | -123.60   | 450.86    | 0.21             | -123.60  | 419650.12  | 724319.03  |         |
| 8626.00  | 5.32        | 93.30       | 8603.15   | -124.19   | 459.37    | 0.37             | -124.19  | 419649.53  | 724327.54  |         |
| 8720.00  | 5.31        | 92.66       | 8696.74   | -124.65   | 468.07    | 0.06             | -124.65  | 419649.07  | 724336.24  |         |
| 8815.00  | 5.87        | 101.56      | 8791.29   | -125.82   | 477.22    | 1.08             | -125.82  | 419647.90  | 724345.39  |         |
| 8910.00  | 5.16        | 107.28      | 8885.85   | -128.07   | 486.06    | 0.94             | -128.07  | 419645.65  | 724354.23  |         |
| 9005.00  | 5.11        | 105.83      | 8980.47   | -130.49   | 494.21    | 0.15             | -130.49  | 419643.23  | 724362.38  |         |
| 9100.00  | 5.77        | 95.37       | 9075.04   | -132.09   | 503.03    | 1.25             | -132.09  | 419641.63  | 724371.20  |         |
| 9194.00  | 5.34        | 89.56       | 9168.60   | -132.50   | 512.11    | 0.75             | -132.50  | 419641.22  | 724380.28  |         |
| 9290.00  | 5.45        | 92.15       | 9264.18   | -132.64   | 521.13    | 0.28             | -132.64  | 419641.08  | 724389.30  |         |
| 9384.00  | 6.74        | 92.14       | 9357.65   | -133.01   | 531.11    | 1.37             | -133.01  | 419640.71  | 724399.28  |         |
| 9479.00  | 7.39        | 90.92       | 9451.92   | -133.32   | 542.79    | 0.70             | -133.32  | 419640.40  | 724410.96  |         |
| 9574.00  | 7.06        | 88.93       | 9546.17   | -133.30   | 554.73    | 0.44             | -133.30  | 419640.42  | 724422.90  |         |
| 9669.00  | 6.15        | 84.30       | 9640.54   | -132.69   | 565.63    | 1.11             | -132.69  | 419641.03  | 724433.80  |         |
| 9680.00  | 6.13        | 83.15       | 9651.48   | -132.56   | 566.80    | 1.13             | -132.56  | 419641.16  | 724434.97  |         |
| 9709.00  | 5.65        | 83.35       | 9680.32   | -132.21   | 569.76    | 1.66             | -132.21  | 419641.51  | 724437.93  |         |
| 9741.00  | 5.36        | 76.61       | 9712.17   | -131.68   | 572.78    | 2.21             | -131.68  | 419642.04  | 724440.95  |         |
| 9772.00  | 6.61        | 51.52       | 9743.01   | -130.24   | 575.58    | 9.25             | -130.24  | 419643.48  | 724443.75  |         |
| 9804.00  | 9.55        | 36.81       | 9774.69   | -126.96   | 578.62    | 11.16            | -126.96  | 419646.76  | 724446.79  |         |
| 9835.00  | 12.27       | 28.12       | 9805.13   | -122.00   | 581.71    | 10.23            | -122.00  | 419651.72  | 724449.88  |         |
| 9866.00  | 14.54       | 17.49       | 9835.29   | -115.38   | 584.43    | 10.78            | -115.38  | 419658.34  | 724452.60  |         |
| 9898.00  | 17.04       | 7.22        | 9866.09   | -106.90   | 586.23    | 11.69            | -106.90  | 419666.82  | 724454.40  |         |
| 9929.00  | 19.53       | 358.99      | 9895.52   | -97.21    | 586.71    | 11.55            | -97.21   | 419676.51  | 724454.88  |         |
| 9961.00  | 22.17       | 355.80      | 9925.43   | -85.83    | 586.17    | 8.98             | -85.83   | 419687.89  | 724454.34  |         |
| 9992.00  | 25.22       | 358.31      | 9953.81   | -73.40    | 585.55    | 10.36            | -73.40   | 419700.32  | 724453.72  |         |
| 10024.00 | 29.57       | 359.24      | 9982.21   | -58.68    | 585.24    | 13.66            | -58.68   | 419715.04  | 724453.41  |         |
| 10056.00 | 33.32       | 0.77        | 10009.51  | -41.99    | 585.26    | 11.98            | -41.99   | 419731.73  | 724453.43  |         |
| 10087.00 | 37.08       | 3.18        | 10034.84  | -24.14    | 585.89    | 12.93            | -24.14   | 419749.58  | 724454.06  |         |
| 10119.00 | 41.22       | 3.77        | 10059.65  | -3.98     | 587.12    | 12.99            | -3.98    | 419769.74  | 724455.29  |         |
| 10150.00 | 44.71       | 3.80        | 10082.33  | 17.10     | 588.51    | 11.26            | 17.10    | 419790.82  | 724456.68  |         |
| 10182.00 | 47.78       | 3.59        | 10104.46  | 40.17     | 590.00    | 9.61             | 40.17    | 419813.89  | 724458.17  |         |
| 10213.00 | 50.76       | 3.21        | 10124.68  | 63.61     | 591.39    | 9.66             | 63.61    | 419837.33  | 724459.56  |         |
| 10245.00 | 53.49       | 3.44        | 10144.33  | 88.83     | 592.86    | 8.55             | 88.83    | 419862.55  | 724461.03  |         |
| 10269.00 | 55.06       | 3.73        | 10158.34  | 108.27    | 594.08    | 6.61             | 108.27   | 419881.99  | 724462.25  |         |
| 10301.00 | 57.70       | 3.50        | 10176.06  | 134.86    | 595.76    | 8.27             | 134.86   | 419908.58  | 724463.93  |         |
| 10332.00 | 60.26       | 3.49        | 10192.03  | 161.38    | 597.38    | 8.26             | 161.38   | 419935.10  | 724465.55  |         |
| 10364.00 | 63.45       | 4.06        | 10207.12  | 189.53    | 599.24    | 10.09            | 189.53   | 419963.25  | 724467.41  |         |
| 10395.00 | 65.78       | 5.00        | 10220.41  | 217.45    | 601.45    | 8.00             | 217.45   | 419991.17  | 724469.62  |         |



# Weatherford

## WFT Survey Report X & Y's



Weatherford

Company: Devon Energy  
Field: Eddy Co., NM (NAD 83)  
Site: Cotton Draw Unit 220H  
Well: Cotton Draw Unit 220H  
Wellpath: 1

Date: 11/18/2013 Time: 05:27:25 Page: 3  
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North  
Vertical (TVD) Reference: SITE 3477.0  
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Survey Calculation Method: Minimum Curvature Db: Sybase

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | VS<br>ft | MapN<br>ft | MapE<br>ft | Comment |
|----------|-------------|-------------|-----------|-----------|-----------|------------------|----------|------------|------------|---------|
| 10427.00 | 67.22       | 4.52        | 10233.17  | 246.69    | 603.88    | 4.71             | 246.69   | 420020.41  | 724472.05  |         |
| 10458.00 | 68.75       | 4.06        | 10244.79  | 275.35    | 606.03    | 5.12             | 275.35   | 420049.07  | 724474.20  |         |
| 10490.00 | 70.44       | 3.29        | 10255.95  | 305.28    | 607.95    | 5.74             | 305.28   | 420079.00  | 724476.12  |         |
| 10521.00 | 72.16       | 2.82        | 10265.89  | 334.60    | 609.52    | 5.73             | 334.60   | 420108.32  | 724477.69  |         |
| 10553.00 | 73.70       | 2.02        | 10275.28  | 365.16    | 610.81    | 5.37             | 365.16   | 420138.88  | 724478.98  |         |
| 10584.00 | 74.34       | 1.90        | 10283.82  | 394.95    | 611.83    | 2.10             | 394.95   | 420168.67  | 724480.00  |         |
| 10616.00 | 74.21       | 1.26        | 10292.49  | 425.74    | 612.68    | 1.97             | 425.74   | 420199.46  | 724480.85  |         |
| 10648.00 | 75.21       | 1.18        | 10300.93  | 456.60    | 613.34    | 3.13             | 456.60   | 420230.32  | 724481.51  |         |
| 10679.00 | 77.08       | 1.57        | 10308.35  | 486.68    | 614.06    | 6.15             | 486.68   | 420260.40  | 724482.23  |         |
| 10711.00 | 79.24       | 1.52        | 10314.92  | 517.99    | 614.90    | 6.75             | 517.99   | 420291.71  | 724483.07  |         |
| 10742.00 | 81.36       | 0.67        | 10320.14  | 548.54    | 615.49    | 7.35             | 548.54   | 420322.26  | 724483.66  |         |
| 10774.00 | 83.27       | 0.02        | 10324.42  | 580.25    | 615.68    | 6.30             | 580.25   | 420353.97  | 724483.85  |         |
| 10805.00 | 84.89       | 359.44      | 10327.61  | 611.08    | 615.53    | 5.55             | 611.08   | 420384.80  | 724483.70  |         |
| 10837.00 | 87.06       | 358.97      | 10329.86  | 643.00    | 615.09    | 6.94             | 643.00   | 420416.72  | 724483.26  |         |
| 10868.00 | 89.37       | 358.49      | 10330.83  | 673.97    | 614.40    | 7.61             | 673.97   | 420447.69  | 724482.57  |         |
| 10900.00 | 90.77       | 358.36      | 10330.79  | 705.96    | 613.52    | 4.39             | 705.96   | 420479.68  | 724481.69  |         |
| 10994.00 | 91.19       | 358.29      | 10329.18  | 799.91    | 610.77    | 0.45             | 799.91   | 420573.63  | 724478.94  |         |
| 11089.00 | 91.19       | 357.32      | 10327.21  | 894.82    | 607.14    | 1.02             | 894.82   | 420668.54  | 724475.31  |         |
| 11183.00 | 89.79       | 358.97      | 10326.40  | 988.76    | 604.09    | 2.30             | 988.76   | 420762.48  | 724472.26  |         |
| 11278.00 | 90.35       | 358.77      | 10326.29  | 1083.74   | 602.22    | 0.63             | 1083.74  | 420857.46  | 724470.39  |         |
| 11372.00 | 90.35       | 358.59      | 10325.71  | 1177.71   | 600.06    | 0.19             | 1177.71  | 420951.43  | 724468.23  |         |
| 11467.00 | 90.91       | 358.80      | 10324.67  | 1272.68   | 597.89    | 0.63             | 1272.68  | 421046.40  | 724466.06  |         |
| 11561.00 | 88.60       | 359.29      | 10325.07  | 1366.66   | 596.33    | 2.51             | 1366.66  | 421140.38  | 724464.50  |         |
| 11655.00 | 89.16       | 358.67      | 10326.91  | 1460.63   | 594.65    | 0.89             | 1460.63  | 421234.35  | 724462.82  |         |
| 11750.00 | 90.28       | 358.34      | 10327.37  | 1555.59   | 592.17    | 1.23             | 1555.59  | 421329.31  | 724460.34  |         |
| 11845.00 | 89.16       | 358.78      | 10327.84  | 1650.56   | 589.79    | 1.27             | 1650.56  | 421424.28  | 724457.96  |         |
| 11939.00 | 90.07       | 1.46        | 10328.47  | 1744.55   | 589.98    | 3.01             | 1744.55  | 421518.27  | 724458.15  |         |
| 12033.00 | 91.96       | 2.14        | 10326.80  | 1838.48   | 592.94    | 2.14             | 1838.48  | 421612.20  | 724461.11  |         |
| 12128.00 | 91.12       | 0.89        | 10324.25  | 1933.41   | 595.45    | 1.58             | 1933.41  | 421707.13  | 724463.62  |         |
| 12223.00 | 88.81       | 0.96        | 10324.31  | 2028.39   | 596.98    | 2.43             | 2028.39  | 421802.11  | 724465.15  |         |
| 12318.00 | 89.16       | 0.50        | 10325.99  | 2123.37   | 598.19    | 0.61             | 2123.37  | 421897.09  | 724466.36  |         |
| 12413.00 | 90.28       | 0.54        | 10326.45  | 2218.36   | 599.05    | 1.18             | 2218.36  | 421992.08  | 724467.22  |         |
| 12508.00 | 91.75       | 0.21        | 10324.77  | 2313.34   | 599.67    | 1.59             | 2313.34  | 422087.06  | 724467.84  |         |
| 12603.00 | 89.44       | 358.34      | 10323.78  | 2408.32   | 598.47    | 3.13             | 2408.32  | 422182.04  | 724466.64  |         |
| 12697.00 | 89.86       | 357.77      | 10324.36  | 2502.26   | 595.28    | 0.75             | 2502.26  | 422275.98  | 724463.45  |         |
| 12792.00 | 88.81       | 357.82      | 10325.46  | 2597.18   | 591.63    | 1.11             | 2597.18  | 422370.90  | 724459.80  |         |
| 12887.00 | 89.44       | 358.98      | 10326.91  | 2692.13   | 588.97    | 1.39             | 2692.13  | 422465.85  | 724457.14  |         |
| 12981.00 | 89.72       | 359.19      | 10327.60  | 2786.12   | 587.47    | 0.37             | 2786.12  | 422559.84  | 724455.64  |         |
| 13076.00 | 90.84       | 357.25      | 10327.14  | 2881.07   | 584.52    | 2.36             | 2881.07  | 422654.79  | 724452.69  |         |
| 13171.00 | 91.89       | 355.17      | 10324.87  | 2975.83   | 578.25    | 2.45             | 2975.83  | 422749.55  | 724446.42  |         |
| 13265.00 | 91.12       | 353.19      | 10322.40  | 3069.30   | 568.72    | 2.26             | 3069.30  | 422843.02  | 724436.89  |         |
| 13359.00 | 88.74       | 353.45      | 10322.52  | 3162.66   | 557.78    | 2.55             | 3162.66  | 422936.38  | 724425.95  |         |
| 13454.00 | 88.46       | 353.01      | 10324.84  | 3256.97   | 546.59    | 0.55             | 3256.97  | 423030.69  | 724414.76  |         |
| 13548.00 | 88.53       | 353.00      | 10327.31  | 3350.24   | 535.14    | 0.08             | 3350.24  | 423123.96  | 724403.31  |         |
| 13643.00 | 89.86       | 353.65      | 10328.64  | 3444.58   | 524.10    | 1.56             | 3444.58  | 423218.30  | 724392.27  |         |
| 13738.00 | 90.42       | 353.92      | 10328.41  | 3539.02   | 513.82    | 0.65             | 3539.02  | 423312.74  | 724381.99  |         |
| 13833.00 | 88.88       | 352.69      | 10328.99  | 3633.37   | 502.74    | 2.07             | 3633.37  | 423407.09  | 724370.91  |         |
| 13927.00 | 88.46       | 352.26      | 10331.17  | 3726.53   | 490.44    | 0.64             | 3726.53  | 423500.25  | 724358.61  |         |
| 14022.00 | 88.46       | 352.20      | 10333.73  | 3820.63   | 477.60    | 0.06             | 3820.63  | 423594.35  | 724345.77  |         |
| 14117.00 | 88.60       | 352.01      | 10336.16  | 3914.69   | 464.55    | 0.25             | 3914.69  | 423688.41  | 724332.72  |         |
| 14211.00 | 89.72       | 353.50      | 10337.54  | 4007.93   | 452.70    | 1.98             | 4007.93  | 423781.65  | 724320.87  |         |
| 14306.00 | 90.21       | 352.93      | 10337.60  | 4102.26   | 441.48    | 0.79             | 4102.26  | 423875.98  | 724309.65  |         |
| 14401.00 | 90.84       | 352.64      | 10336.73  | 4196.51   | 429.55    | 0.73             | 4196.51  | 423970.23  | 724297.72  |         |



# Weatherford

## WFT Survey Report X & Y's



Weatherford

Company: Devon Energy Date: 11/18/2013 Time: 05:27:25 Page: 4  
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North  
Site: Cotton Draw Unit 220H Vertical (TVD) Reference: SITE 3477.0  
Well: Cotton Draw Unit 220H Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)  
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | VS<br>ft | MapN<br>ft | MapE<br>ft | Comment      |
|----------|-------------|-------------|-----------|-----------|-----------|------------------|----------|------------|------------|--------------|
| 14495.00 | 91.47       | 352.53      | 10334.84  | 4289.70   | 417.42    | 0.68             | 4289.70  | 424063.42  | 724285.59  |              |
| 14590.00 | 90.35       | 352.46      | 10333.33  | 4383.87   | 405.01    | 1.18             | 4383.87  | 424157.59  | 724273.18  |              |
| 14685.00 | 89.86       | 352.13      | 10333.15  | 4478.02   | 392.27    | 0.62             | 4478.02  | 424251.74  | 724260.44  |              |
| 14780.00 | 90.49       | 351.80      | 10332.86  | 4572.08   | 379.00    | 0.75             | 4572.08  | 424345.80  | 724247.17  |              |
| 14875.00 | 89.65       | 353.17      | 10332.75  | 4666.26   | 366.57    | 1.69             | 4666.26  | 424439.98  | 724234.74  |              |
| 14905.00 | 89.37       | 353.30      | 10333.00  | 4696.05   | 363.04    | 1.03             | 4696.05  | 424469.77  | 724231.21  | Last Wft Svy |
| 14975.00 | 89.37       | 353.30      | 10333.77  | 4765.57   | 354.87    | 0.00             | 4765.57  | 424539.29  | 724223.04  | Proj. To Bit |

### Annotation

| MD<br>ft | TVD<br>ft |               |
|----------|-----------|---------------|
| 4118.00  | 4116.79   | Tie On VES    |
| 4367.00  | 4364.93   | First Wft Svy |
| 14905.00 | 10333.00  | Last Wft Svy  |
| 14975.00 | 10333.77  | Proj. To Bit  |



Cotton Draw Unit 220H  
Eddy Co., New Mexico



KB ELEV: 3477  
GL ELEV: 3452

#### SECTION DETAILS

| Sec | MD       | Inc   | Azi    | TVD      | +N/-S   | +E/-W  | DLeg  | TFace  | VSec    | Target |
|-----|----------|-------|--------|----------|---------|--------|-------|--------|---------|--------|
| 1   | 4118.00  | 4.35  | 132.34 | 4116.79  | -42.34  | 30.45  | 0.00  | 0.00   | -42.34  |        |
| 2   | 4300.00  | 4.35  | 132.34 | 4298.27  | -51.64  | 40.65  | 0.00  | 0.00   | -51.64  |        |
| 3   | 4599.42  | 5.52  | 99.62  | 4596.63  | -61.69  | 63.25  | 1.00  | -84.31 | -61.69  |        |
| 4   | 9777.24  | 5.52  | 99.62  | 9750.46  | -144.92 | 554.17 | 0.00  | 0.00   | -144.92 |        |
| 5   | 10686.45 | 90.00 | 0.00   | 10330.00 | 427.96  | 609.37 | 10.00 | -99.58 | 427.96  | Lp Tgt |
| 6   | 12765.84 | 90.00 | 0.00   | 10330.00 | 2507.35 | 609.37 | 0.00  | 0.00   | 2507.35 |        |
| 7   | 13079.11 | 90.00 | 353.73 | 10330.00 | 2819.99 | 592.26 | 2.00  | -90.00 | 2819.99 |        |
| 8   | 15037.06 | 90.00 | 353.73 | 10330.00 | 4766.25 | 378.58 | 0.00  | 0.00   | 4766.25 | PBHL   |

#### WELL DETAILS

| Name                  | +N/-S | +E/-W | Northing  | Easting   | Latitude      | Longitude      | Slot |
|-----------------------|-------|-------|-----------|-----------|---------------|----------------|------|
| Cotton Draw Unit 220H | 0.00  | 0.00  | 419773.72 | 723868.17 | 32°09'09.575N | 103°44'36.715W | N/A  |

#### TARGET DETAILS

| Name   | TVD      | +N/-S   | +E/-W  | Northing  | Easting   | Shape               |
|--------|----------|---------|--------|-----------|-----------|---------------------|
| Lp Tgt | 10330.00 | 427.96  | 609.37 | 420201.68 | 724477.54 | Rectangle (2250x50) |
| PBHL   | 10330.00 | 4766.25 | 378.58 | 424539.97 | 724246.75 | Rectangle (2200x50) |

#### LEGEND

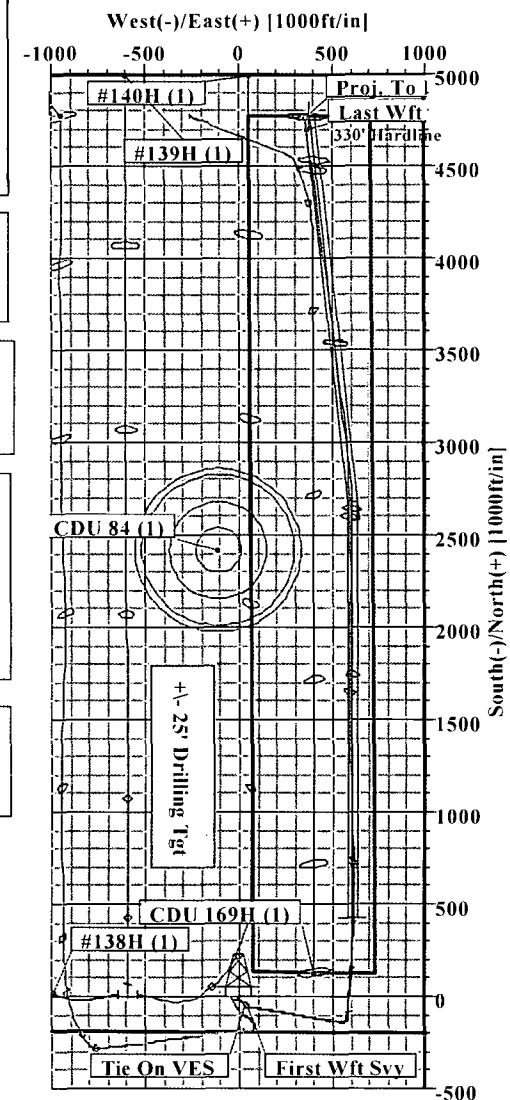
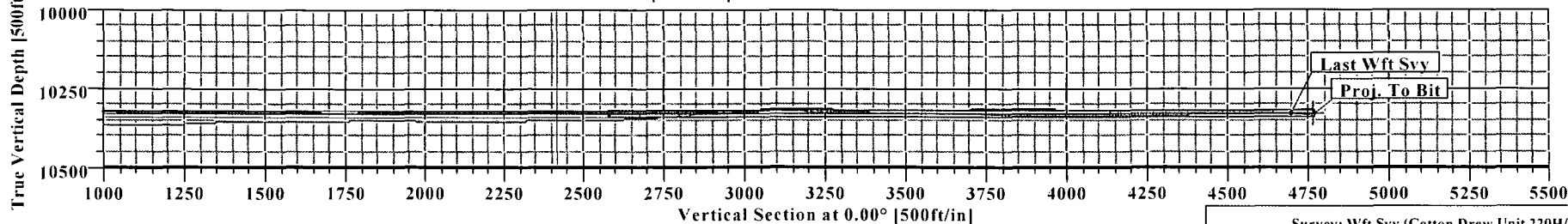
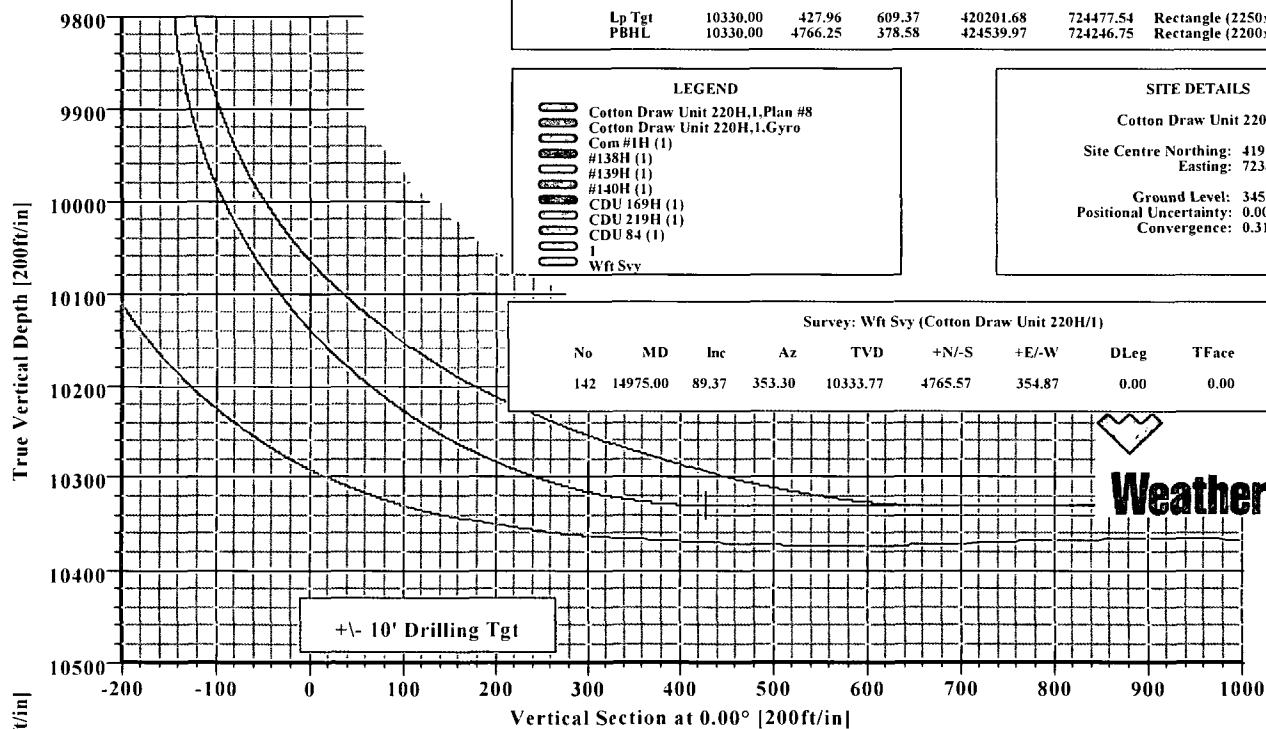
- Cotton Draw Unit 220H, I, Plan #8
- Cotton Draw Unit 220H, I, Gyro
- Com #1H (1)
- #138H (1)
- #139H (1)
- #140H (1)
- CDU 169H (1)
- CDU 219H (1)
- CDU 84 (1)
- 1 Wft Svy

#### SITE DETAILS

Cotton Draw Unit 220H  
Site Centre Northing: 419773.72  
Easting: 723868.17  
Ground Level: 3452.00  
Positional Uncertainty: 0.00  
Convergence: 0.31

#### Survey: Wft Svy (Cotton Draw Unit 220H/1)

| No  | MD       | Inc   | Az     | TVD      | +N/-S   | +E/-W  | DLeg | TFace | VSec    |
|-----|----------|-------|--------|----------|---------|--------|------|-------|---------|
| 142 | 14975.00 | 89.37 | 353.30 | 10333.77 | 4765.57 | 354.87 | 0.00 | 0.00  | 4765.57 |



Survey: Wft Svy (Cotton Draw Unit 220H/1)

Created By: Russell W. Joyner

Date: 11/18/2013