



NM OIL CONSERVATION  
ARTESIA DISTRICT

APR 25 2018

RECEIVED  
5D Plan Report

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## Apache Corporation

**Field Name:** *Apache NM (Nad 83 NMEZ)*  
**Site Name:** *Palmillo 26 State COM (315H,316H)*  
**Well Name:** *Palmillo 26 State COM 316H - 30-015-44908*  
**Plan:** *P1:V1*

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9 April 2018





## Palmillo 26 State COM 316H

|                                                   |                                                                       |                                           |                                         |                          |
|---------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|-----------------------------------------|--------------------------|
| <b>Field Name:</b><br>Apache NM (Nad 83 NMEZ)     | <b>Map Units:</b> US ft                                               |                                           | <b>Company Name:</b> Apache Corporation |                          |
|                                                   | <b>Vertical Reference Datum (VRD):</b> Mean Sea Level                 |                                           |                                         |                          |
|                                                   | <b>Projected Coordinate System:</b> NAD83 / New Mexico East (ftUS)    |                                           |                                         |                          |
|                                                   | <b>Comment:</b>                                                       |                                           |                                         |                          |
| <b>Site:</b><br>Palmillo 26 State COM (315H,316H) | <b>Units:</b> US ft                                                   | <b>North Reference:</b> Grid              | <b>Convergence Angle:</b> 0.10          |                          |
|                                                   | <b>Position:</b>                                                      | <b>Northing:</b> 595474.30 US ft          | <b>Latitude:</b> 32.636858387           |                          |
|                                                   |                                                                       | <b>Easting:</b> 600953.20 US ft           | <b>Longitude:</b> -104.139666791        |                          |
|                                                   |                                                                       | <b>Elevation above MSL:</b> 3360.00 US ft |                                         |                          |
| <b>Comment:</b> Eddy Co. New Mexico               |                                                                       |                                           |                                         |                          |
| <b>Slot:</b><br>Palmillo 26 State COM 316H        | <b>Position (Relative to Site Centre)</b>                             |                                           |                                         |                          |
|                                                   | <b>+N/-S:</b> 40.00 US ft                                             | <b>Northing:</b> 595514.30 US ft          | <b>Latitude:</b> 32.636968336           |                          |
|                                                   | <b>+E/-W:</b> -0.10 US ft                                             | <b>Easting:</b> 600953.10 US ft           | <b>Longitude:</b> -104.139666879        |                          |
|                                                   | <b>Slot TVD Reference:</b> Ground Elevation                           |                                           |                                         |                          |
|                                                   | <b>Elevation above MSL:</b> 3359.00 US ft                             |                                           |                                         |                          |
|                                                   | <b>Comment:</b>                                                       |                                           |                                         |                          |
| <b>Well:</b><br>Palmillo 26 State COM 316H        | <b>Type:</b> Main well                                                |                                           | <b>UWI:</b>                             | <b>Plan:</b> P1:V1       |
|                                                   | <b>File Number:</b>                                                   | <b>Comment:</b> H&P 482                   |                                         |                          |
|                                                   | <b>Closure Distance:</b> 4932.43US ft                                 |                                           | <b>Closure Azimuth:</b> 274.25°         |                          |
|                                                   | <b>Vertical Section: Position of Origin (Relative to Slot centre)</b> |                                           |                                         |                          |
|                                                   | <b>+N/-S:</b> -0.00 US ft                                             |                                           | <b>+E/-W:</b> -0.00 US ft               | <b>Az:</b> 270.00°       |
|                                                   | <b>Magnetic Parameters:</b>                                           |                                           |                                         |                          |
|                                                   | <b>Model:</b> bggm2017                                                | <b>Field Strength:</b> 48131.4nT          | <b>Declination:</b> 7.23°               | <b>Dip:</b> 60.33°       |
|                                                   |                                                                       |                                           |                                         | <b>Date:</b> 01/May/2018 |
|                                                   |                                                                       |                                           |                                         |                          |
|                                                   |                                                                       |                                           |                                         |                          |

### Drill floor: Plan: P1:V1

|                                             |                                          |                           |                       |
|---------------------------------------------|------------------------------------------|---------------------------|-----------------------|
| <b>Rig Height (Drill Floor):</b> 26.00us ft | <b>Elevation above MSL:</b> 3385.00us ft | <b>Inclination:</b> 0.00° | <b>Azimuth:</b> 0.00° |
|---------------------------------------------|------------------------------------------|---------------------------|-----------------------|

### Target set: P26 St Com 316H Comment:

| Target Name: | Shape: | TVD (US ft) | N.Offset (US ft) | E.Offset (US ft) | Northing (USft) | Easting (USft) | C.Pt.Distance (US ft) | Comment |
|--------------|--------|-------------|------------------|------------------|-----------------|----------------|-----------------------|---------|
| KOP          | Point  | 8212.00     | 365.20           | 130.00           | 595879.50       | 601083.10      | 0.00                  |         |
| LP           | Point  | 8689.30     | 365.20           | -360.00          | 595879.50       | 600593.10      | 0.00                  |         |
| T1           | Point  | 8629.00     | 365.20           | -2654.00         | 595879.50       | 598299.10      | 0.00                  |         |
| T2           | Point  | 8601.00     | 365.20           | -3499.00         | 595879.50       | 597454.10      | 0.00                  |         |
| PBHL         | Point  | 8577.00     | 365.20           | -4868.90         | 595879.50       | 596084.20      | 0.00                  |         |



## 5D Plan Report

| Casing Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |                     |                     |                     |                    |           |
|-----------------------------------------------------------------------|------------|-----------|----------------|---------------------|---------------------|---------------------|--------------------|-----------|
| MD<br>(US ft)                                                         | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Name      |
| 400.00                                                                | 0.00       | 0.00      | 400.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 13 3/8 in |
| 8016.76                                                               | 0.00       | 0.00      | 8000.00        | 365.20              | 130.00              | 595879.50           | 601083.10          | 9 5/8 in  |

Wellpath created using minimum curvature.

| Tie Point:   |                    |                |                 |                          |                         |  |
|--------------|--------------------|----------------|-----------------|--------------------------|-------------------------|--|
| MD: 0.00USft | Inclination: 0.00° | Azimuth: 0.00° | TVD: - 0.00USft | North Offset: - 0.00USft | East Offset: - 0.00USft |  |

| Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |               |                     |                     |                     |                    |                     |                     |
|------------------------------------------------------------------------|------------|-----------|----------------|---------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
| MD<br>(US ft)                                                          | Inc<br>(°) | Az<br>(°) | TVD<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 ft) | Comment             |
| 0.00                                                                   | 0.00       | 0.00      | -0.00          | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |                     |
| 3100.00                                                                | 0.00       | 0.00      | 3100.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                | Nudge               |
| 3615.60                                                                | 5.16       | 19.59     | 3614.91        | -7.77         | 21.84               | 7.77                | 595536.14           | 600960.87          | 1.00                | Hold Tangent        |
| 7413.15                                                                | 5.16       | 19.59     | 7397.09        | -122.23       | 343.36              | 122.23              | 595857.66           | 601075.33          | 0.00                | Drop                |
| 7928.76                                                                | 0.00       | 0.00      | 7912.00        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 1.00                | Hold                |
| 8228.76                                                                | 0.00       | 0.00      | 8212.00        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 0.00                | KOP                 |
| 8991.29                                                                | 91.50      | 270.00    | 8689.30        | 360.00        | 365.20              | -360.00             | 595879.50           | 600593.10          | 12.00               | Landing Pt          |
| 11265.14                                                               | 91.50      | 270.00    | 8629.63        | 2633.06       | 365.20              | -2633.06            | 595879.50           | 598320.04          | 0.00                | Build               |
| 11286.09                                                               | 91.92      | 270.00    | 8629.00        | 2654.00       | 365.20              | -2654.00            | 595879.50           | 598299.10          | 2.00                | T1                  |
| 12085.59                                                               | 91.92      | 270.00    | 8602.17        | 3453.06       | 365.20              | -3453.06            | 595879.50           | 597500.04          | 0.00                | Drop                |
| 12131.55                                                               | 91.00      | 270.00    | 8601.00        | 3499.00       | 365.20              | -3499.00            | 595879.50           | 597454.10          | 2.00                | T2                  |
| 13501.66                                                               | 91.00      | 270.00    | 8577.00        | 4868.90       | 365.20              | -4868.90            | 595879.50           | 596084.20          | 0.00                | 316H PBHL           |
| 13551.66                                                               | 91.00      | 270.00    | 8576.12        | 4918.89       | 365.20              | -4918.89            | 595879.50           | 596034.21          | 0.00                | +50' for Orlo Valve |

| Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |               |                     |                     |                     |                    |                     |           |
|-----------------------------------------------------------------------------|------------|-----------|----------------|---------------|---------------------|---------------------|---------------------|--------------------|---------------------|-----------|
| MD<br>(US ft)                                                               | Inc<br>(°) | Az<br>(°) | TVD<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 ft) | Comment   |
| 0.00                                                                        | 0.00       | 0.00      | -0.00          | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                | 13 3/8 in |
| 100.00                                                                      | 0.00       | 0.00      | 100.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 200.00                                                                      | 0.00       | 0.00      | 200.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 300.00                                                                      | 0.00       | 0.00      | 300.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 400.00                                                                      | 0.00       | 0.00      | 400.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 500.00                                                                      | 0.00       | 0.00      | 500.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 600.00                                                                      | 0.00       | 0.00      | 600.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 700.00                                                                      | 0.00       | 0.00      | 700.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 800.00                                                                      | 0.00       | 0.00      | 800.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 900.00                                                                      | 0.00       | 0.00      | 900.00         | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1000.00                                                                     | 0.00       | 0.00      | 1000.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1100.00                                                                     | 0.00       | 0.00      | 1100.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1200.00                                                                     | 0.00       | 0.00      | 1200.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1300.00                                                                     | 0.00       | 0.00      | 1300.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1400.00                                                                     | 0.00       | 0.00      | 1400.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1500.00                                                                     | 0.00       | 0.00      | 1500.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1600.00                                                                     | 0.00       | 0.00      | 1600.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1700.00                                                                     | 0.00       | 0.00      | 1700.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1800.00                                                                     | 0.00       | 0.00      | 1800.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 1900.00                                                                     | 0.00       | 0.00      | 1900.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2000.00                                                                     | 0.00       | 0.00      | 2000.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2100.00                                                                     | 0.00       | 0.00      | 2100.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2200.00                                                                     | 0.00       | 0.00      | 2200.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2300.00                                                                     | 0.00       | 0.00      | 2300.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2400.00                                                                     | 0.00       | 0.00      | 2400.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2500.00                                                                     | 0.00       | 0.00      | 2500.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2600.00                                                                     | 0.00       | 0.00      | 2600.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2700.00                                                                     | 0.00       | 0.00      | 2700.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2800.00                                                                     | 0.00       | 0.00      | 2800.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 2900.00                                                                     | 0.00       | 0.00      | 2900.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |
| 3000.00                                                                     | 0.00       | 0.00      | 3000.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                |           |



## 5D Plan Report

| Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |               |                     |                     |                     |                    |                     |                     |
|-----------------------------------------------------------------------------|------------|-----------|----------------|---------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
| MD<br>(US ft)                                                               | Inc<br>(°) | Az<br>(°) | TVD<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 ft) | Comment             |
| 3099.90                                                                     | 0.00       | 0.00      | 3099.90        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                | Delaware<br>Sands : |
| 3100.00                                                                     | 0.00       | 0.00      | 3100.00        | -0.00         | -0.00               | -0.00               | 595514.30           | 600953.10          | 0.00                | Nudge               |
| 3200.00                                                                     | 1.00       | 19.59     | 3199.99        | -0.29         | 0.82                | 0.29                | 595515.12           | 600953.39          | 1.00                |                     |
| 3300.00                                                                     | 2.00       | 19.59     | 3299.96        | -1.17         | 3.29                | 1.17                | 595517.59           | 600954.27          | 1.00                |                     |
| 3400.00                                                                     | 3.00       | 19.59     | 3399.86        | -2.63         | 7.40                | 2.63                | 595521.70           | 600955.73          | 1.00                |                     |
| 3500.00                                                                     | 4.00       | 19.59     | 3499.68        | -4.68         | 13.15               | 4.68                | 595527.45           | 600957.78          | 1.00                |                     |
| 3600.00                                                                     | 5.00       | 19.59     | 3599.37        | -7.31         | 20.54               | 7.31                | 595534.84           | 600960.41          | 1.00                |                     |
| 3615.60                                                                     | 5.16       | 19.59     | 3614.91        | -7.77         | 21.84               | 7.77                | 595536.14           | 600960.87          | 1.00                | Hold Tangent        |
| 3700.00                                                                     | 5.16       | 19.59     | 3698.96        | -10.32        | 28.99               | 10.32               | 595543.29           | 600963.42          | 0.00                |                     |
| 3800.00                                                                     | 5.16       | 19.59     | 3798.56        | -13.33        | 37.45               | 13.33               | 595551.75           | 600966.43          | 0.00                |                     |
| 3900.00                                                                     | 5.16       | 19.59     | 3898.15        | -16.35        | 45.92               | 16.35               | 595560.22           | 600969.45          | 0.00                |                     |
| 3947.04                                                                     | 5.16       | 19.59     | 3945.00        | -17.76        | 49.90               | 17.76               | 595564.20           | 600970.86          | 0.00                | 1BSC :              |
| 4000.00                                                                     | 5.16       | 19.59     | 3997.75        | -19.36        | 54.39               | 19.36               | 595568.69           | 600972.46          | 0.00                |                     |
| 4100.00                                                                     | 5.16       | 19.59     | 4097.34        | -22.37        | 62.85               | 22.37               | 595577.15           | 600975.47          | 0.00                |                     |
| 4200.00                                                                     | 5.16       | 19.59     | 4196.94        | -25.39        | 71.32               | 25.39               | 595585.62           | 600978.49          | 0.00                |                     |
| 4300.00                                                                     | 5.16       | 19.59     | 4296.54        | -28.40        | 79.79               | 28.40               | 595594.09           | 600981.50          | 0.00                |                     |
| 4400.00                                                                     | 5.16       | 19.59     | 4396.13        | -31.41        | 88.25               | 31.41               | 595602.55           | 600984.51          | 0.00                |                     |
| 4500.00                                                                     | 5.16       | 19.59     | 4495.73        | -34.43        | 96.72               | 34.43               | 595611.02           | 600987.53          | 0.00                |                     |
| 4600.00                                                                     | 5.16       | 19.59     | 4595.32        | -37.44        | 105.18              | 37.44               | 595619.48           | 600990.54          | 0.00                |                     |
| 4700.00                                                                     | 5.16       | 19.59     | 4694.92        | -40.46        | 113.65              | 40.46               | 595627.95           | 600993.56          | 0.00                |                     |
| 4800.00                                                                     | 5.16       | 19.59     | 4794.51        | -43.47        | 122.12              | 43.47               | 595636.42           | 600996.57          | 0.00                |                     |
| 4900.00                                                                     | 5.16       | 19.59     | 4894.11        | -46.48        | 130.58              | 46.48               | 595644.88           | 600999.58          | 0.00                |                     |
| 5000.00                                                                     | 5.16       | 19.59     | 4993.70        | -49.50        | 139.05              | 49.50               | 595653.35           | 601002.60          | 0.00                |                     |
| 5100.00                                                                     | 5.16       | 19.59     | 5093.30        | -52.51        | 147.52              | 52.51               | 595661.82           | 601005.61          | 0.00                |                     |
| 5200.00                                                                     | 5.16       | 19.59     | 5192.89        | -55.53        | 155.98              | 55.53               | 595670.28           | 601008.63          | 0.00                |                     |
| 5300.00                                                                     | 5.16       | 19.59     | 5292.49        | -58.54        | 164.45              | 58.54               | 595678.75           | 601011.64          | 0.00                |                     |
| 5400.00                                                                     | 5.16       | 19.59     | 5392.08        | -61.55        | 172.92              | 61.55               | 595687.22           | 601014.65          | 0.00                |                     |
| 5500.00                                                                     | 5.16       | 19.59     | 5491.68        | -64.57        | 181.38              | 64.57               | 595695.68           | 601017.67          | 0.00                |                     |
| 5600.00                                                                     | 5.16       | 19.59     | 5591.27        | -67.58        | 189.85              | 67.58               | 595704.15           | 601020.68          | 0.00                |                     |
| 5700.00                                                                     | 5.16       | 19.59     | 5690.87        | -70.59        | 198.32              | 70.59               | 595712.62           | 601023.69          | 0.00                |                     |
| 5800.00                                                                     | 5.16       | 19.59     | 5790.47        | -73.61        | 206.78              | 73.61               | 595721.08           | 601026.71          | 0.00                |                     |
| 5900.00                                                                     | 5.16       | 19.59     | 5890.06        | -76.62        | 215.25              | 76.62               | 595729.55           | 601029.72          | 0.00                |                     |
| 6000.00                                                                     | 5.16       | 19.59     | 5989.66        | -79.64        | 223.71              | 79.64               | 595738.01           | 601032.74          | 0.00                |                     |
| 6100.00                                                                     | 5.16       | 19.59     | 6089.25        | -82.65        | 232.18              | 82.65               | 595746.48           | 601035.75          | 0.00                |                     |
| 6200.00                                                                     | 5.16       | 19.59     | 6188.85        | -85.66        | 240.65              | 85.66               | 595754.95           | 601038.76          | 0.00                |                     |
| 6300.00                                                                     | 5.16       | 19.59     | 6288.44        | -88.68        | 249.11              | 88.68               | 595763.41           | 601041.78          | 0.00                |                     |
| 6400.00                                                                     | 5.16       | 19.59     | 6388.04        | -91.69        | 257.58              | 91.69               | 595771.88           | 601044.79          | 0.00                |                     |
| 6500.00                                                                     | 5.16       | 19.59     | 6487.63        | -94.70        | 266.05              | 94.70               | 595780.35           | 601047.80          | 0.00                |                     |
| 6600.00                                                                     | 5.16       | 19.59     | 6587.23        | -97.72        | 274.51              | 97.72               | 595788.81           | 601050.82          | 0.00                |                     |
| 6637.92                                                                     | 5.16       | 19.59     | 6625.00        | -98.86        | 277.72              | 98.86               | 595792.02           | 601051.96          | 0.00                | 1 BSS :             |
| 6700.00                                                                     | 5.16       | 19.59     | 6686.82        | -100.73       | 282.98              | 100.73              | 595797.28           | 601053.83          | 0.00                |                     |
| 6800.00                                                                     | 5.16       | 19.59     | 6786.42        | -103.75       | 291.45              | 103.75              | 595805.75           | 601056.85          | 0.00                |                     |
| 6808.62                                                                     | 5.16       | 19.59     | 6795.00        | -104.01       | 292.18              | 104.01              | 595806.48           | 601057.11          | 0.00                | 2 BSC :             |
| 6900.00                                                                     | 5.16       | 19.59     | 6886.01        | -106.76       | 299.91              | 106.76              | 595814.21           | 601059.86          | 0.00                |                     |
| 7000.00                                                                     | 5.16       | 19.59     | 6985.61        | -109.77       | 308.38              | 109.77              | 595822.68           | 601062.87          | 0.00                |                     |
| 7100.00                                                                     | 5.16       | 19.59     | 7085.21        | -112.79       | 316.85              | 112.79              | 595831.15           | 601065.89          | 0.00                |                     |
| 7200.00                                                                     | 5.16       | 19.59     | 7184.80        | -115.80       | 325.31              | 115.80              | 595839.61           | 601068.90          | 0.00                |                     |
| 7300.00                                                                     | 5.16       | 19.59     | 7284.40        | -118.81       | 333.78              | 118.81              | 595848.08           | 601071.91          | 0.00                |                     |
| 7400.00                                                                     | 5.16       | 19.59     | 7383.99        | -121.83       | 342.24              | 121.83              | 595856.54           | 601074.93          | 0.00                |                     |
| 7401.01                                                                     | 5.16       | 19.59     | 7385.00        | -121.86       | 342.33              | 121.86              | 595856.63           | 601074.96          | 0.00                | 2 BSS :             |
| 7413.15                                                                     | 5.16       | 19.59     | 7397.09        | -122.23       | 343.36              | 122.23              | 595857.66           | 601075.33          | 0.00                | Drop                |
| 7500.00                                                                     | 4.29       | 19.59     | 7483.64        | -124.62       | 350.09              | 124.62              | 595864.39           | 601077.72          | 1.00                |                     |
| 7600.00                                                                     | 3.29       | 19.59     | 7583.42        | -126.84       | 356.32              | 126.84              | 595870.62           | 601079.94          | 1.00                |                     |
| 7700.00                                                                     | 2.29       | 19.59     | 7683.30        | -128.47       | 360.90              | 128.47              | 595875.20           | 601081.57          | 1.00                |                     |
| 7716.71                                                                     | 2.12       | 19.59     | 7700.00        | -128.68       | 361.50              | 128.68              | 595875.80           | 601081.78          | 1.00                | 3 BSC :             |
| 7800.00                                                                     | 1.29       | 19.59     | 7783.25        | -129.51       | 363.84              | 129.51              | 595878.14           | 601082.61          | 1.00                |                     |
| 7900.00                                                                     | 0.29       | 19.59     | 7883.24        | -129.98       | 365.13              | 129.98              | 595879.43           | 601083.08          | 1.00                |                     |
| 7928.76                                                                     | 0.00       | 0.00      | 7912.00        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 1.00                | Hold                |

## 5D Plan Report

| Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |               |                     |                     |                     |                    |                     |             |
|-----------------------------------------------------------------------------|------------|-----------|----------------|---------------|---------------------|---------------------|---------------------|--------------------|---------------------|-------------|
| MD<br>(US ft)                                                               | Inc<br>(°) | Az<br>(°) | TVD<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 ft) | Comment     |
| 8000.00                                                                     | 0.00       | 0.00      | 7983.24        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 0.00                |             |
| 8016.76                                                                     | 0.00       | 0.00      | 8000.00        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 0.00                | 9 5/8 in    |
| 8100.00                                                                     | 0.00       | 0.00      | 8083.24        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 0.00                |             |
| 8200.00                                                                     | 0.00       | 0.00      | 8183.24        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 0.00                |             |
| 8228.76                                                                     | 0.00       | 0.00      | 8212.00        | -130.00       | 365.20              | 130.00              | 595879.50           | 601083.10          | 0.00                | KOP         |
| 8300.00                                                                     | 8.55       | 270.00    | 8282.98        | -124.69       | 365.20              | 124.69              | 595879.50           | 601077.79          | 12.00               |             |
| 8400.00                                                                     | 20.55      | 270.00    | 8379.59        | -99.62        | 365.20              | 99.62               | 595879.50           | 601052.72          | 12.00               |             |
| 8500.00                                                                     | 32.55      | 270.00    | 8468.89        | -55.00        | 365.20              | 55.00               | 595879.50           | 601008.10          | 12.00               |             |
| 8531.67                                                                     | 36.35      | 270.00    | 8495.00        | -37.09        | 365.20              | 37.09               | 595879.50           | 600990.19          | 12.00               | 3 BSS :     |
| 8600.00                                                                     | 44.55      | 270.00    | 8546.95        | 7.20          | 365.20              | -7.20               | 595879.50           | 600945.90          | 12.00               |             |
| 8700.00                                                                     | 56.55      | 270.00    | 8610.38        | 84.28         | 365.20              | -84.28              | 595879.50           | 600868.82          | 12.00               |             |
| 8800.00                                                                     | 68.55      | 270.00    | 8656.39        | 172.85        | 365.20              | -172.85             | 595879.50           | 600780.25          | 12.00               |             |
| 8894.20                                                                     | 79.85      | 270.00    | 8682.00        | 263.35        | 365.20              | -263.35             | 595879.50           | 600689.75          | 12.00               | Landing Top |
| 8900.00                                                                     | 80.55      | 270.00    | 8682.98        | 269.06        | 365.20              | -269.06             | 595879.50           | 600684.04          | 12.00               |             |
| 8991.29                                                                     | 91.50      | 270.00    | 8689.30        | 360.00        | 365.20              | -360.00             | 595879.50           | 600593.10          | 12.00               | Landing Pt  |
| 9000.00                                                                     | 91.50      | 270.00    | 8689.07        | 368.70        | 365.20              | -368.70             | 595879.50           | 600584.40          | 0.00                |             |
| 9100.00                                                                     | 91.50      | 270.00    | 8686.45        | 468.67        | 365.20              | -468.67             | 595879.50           | 600484.43          | 0.00                |             |
| 9200.00                                                                     | 91.50      | 270.00    | 8683.82        | 568.63        | 365.20              | -568.63             | 595879.50           | 600384.47          | 0.00                |             |
| 9300.00                                                                     | 91.50      | 270.00    | 8681.20        | 668.60        | 365.20              | -668.60             | 595879.50           | 600284.50          | 0.00                |             |
| 9400.00                                                                     | 91.50      | 270.00    | 8678.57        | 768.57        | 365.20              | -768.57             | 595879.50           | 600184.53          | 0.00                |             |
| 9500.00                                                                     | 91.50      | 270.00    | 8675.95        | 868.53        | 365.20              | -868.53             | 595879.50           | 600084.57          | 0.00                |             |
| 9600.00                                                                     | 91.50      | 270.00    | 8673.33        | 968.50        | 365.20              | -968.50             | 595879.50           | 599984.60          | 0.00                |             |
| 9700.00                                                                     | 91.50      | 270.00    | 8670.70        | 1068.46       | 365.20              | -1068.46            | 595879.50           | 599884.64          | 0.00                |             |
| 9800.00                                                                     | 91.50      | 270.00    | 8668.08        | 1168.43       | 365.20              | -1168.43            | 595879.50           | 599784.67          | 0.00                |             |
| 9900.00                                                                     | 91.50      | 270.00    | 8665.45        | 1268.39       | 365.20              | -1268.39            | 595879.50           | 599684.71          | 0.00                |             |
| 10000.00                                                                    | 91.50      | 270.00    | 8662.83        | 1368.36       | 365.20              | -1368.36            | 595879.50           | 599584.74          | 0.00                |             |
| 10100.00                                                                    | 91.50      | 270.00    | 8660.20        | 1468.32       | 365.20              | -1468.32            | 595879.50           | 599484.78          | 0.00                |             |
| 10200.00                                                                    | 91.50      | 270.00    | 8657.58        | 1568.29       | 365.20              | -1568.29            | 595879.50           | 599384.81          | 0.00                |             |
| 10300.00                                                                    | 91.50      | 270.00    | 8654.96        | 1668.26       | 365.20              | -1668.26            | 595879.50           | 599284.84          | 0.00                |             |
| 10400.00                                                                    | 91.50      | 270.00    | 8652.33        | 1768.22       | 365.20              | -1768.22            | 595879.50           | 599184.88          | 0.00                |             |
| 10500.00                                                                    | 91.50      | 270.00    | 8649.71        | 1868.19       | 365.20              | -1868.19            | 595879.50           | 599084.91          | 0.00                |             |
| 10600.00                                                                    | 91.50      | 270.00    | 8647.08        | 1968.15       | 365.20              | -1968.15            | 595879.50           | 598984.95          | 0.00                |             |
| 10700.00                                                                    | 91.50      | 270.00    | 8644.46        | 2068.12       | 365.20              | -2068.12            | 595879.50           | 598884.98          | 0.00                |             |
| 10800.00                                                                    | 91.50      | 270.00    | 8641.83        | 2168.08       | 365.20              | -2168.08            | 595879.50           | 598785.02          | 0.00                |             |
| 10900.00                                                                    | 91.50      | 270.00    | 8639.21        | 2268.05       | 365.20              | -2268.05            | 595879.50           | 598685.05          | 0.00                |             |
| 11000.00                                                                    | 91.50      | 270.00    | 8636.58        | 2368.01       | 365.20              | -2368.01            | 595879.50           | 598585.09          | 0.00                |             |
| 11100.00                                                                    | 91.50      | 270.00    | 8633.96        | 2467.98       | 365.20              | -2467.98            | 595879.50           | 598485.12          | 0.00                |             |
| 11200.00                                                                    | 91.50      | 270.00    | 8631.34        | 2567.95       | 365.20              | -2567.95            | 595879.50           | 598385.15          | 0.00                |             |
| 11265.14                                                                    | 91.50      | 270.00    | 8629.63        | 2633.06       | 365.20              | -2633.06            | 595879.50           | 598320.04          | 0.00                | Build       |
| 11286.09                                                                    | 91.92      | 270.00    | 8629.00        | 2654.00       | 365.20              | -2654.00            | 595879.50           | 598299.10          | 2.00                | T1          |
| 11300.00                                                                    | 91.92      | 270.00    | 8628.53        | 2667.91       | 365.20              | -2667.91            | 595879.50           | 598285.19          | 0.00                |             |
| 11400.00                                                                    | 91.92      | 270.00    | 8625.18        | 2767.85       | 365.20              | -2767.85            | 595879.50           | 598185.25          | 0.00                |             |
| 11500.00                                                                    | 91.92      | 270.00    | 8621.82        | 2867.79       | 365.20              | -2867.79            | 595879.50           | 598085.31          | 0.00                |             |
| 11600.00                                                                    | 91.92      | 270.00    | 8618.47        | 2967.74       | 365.20              | -2967.74            | 595879.50           | 597985.36          | 0.00                |             |
| 11700.00                                                                    | 91.92      | 270.00    | 8615.11        | 3067.68       | 365.20              | -3067.68            | 595879.50           | 597885.42          | 0.00                |             |
| 11800.00                                                                    | 91.92      | 270.00    | 8611.76        | 3167.62       | 365.20              | -3167.62            | 595879.50           | 597785.48          | 0.00                |             |
| 11900.00                                                                    | 91.92      | 270.00    | 8608.40        | 3267.57       | 365.20              | -3267.57            | 595879.50           | 597685.53          | 0.00                |             |
| 12000.00                                                                    | 91.92      | 270.00    | 8605.05        | 3367.51       | 365.20              | -3367.51            | 595879.50           | 597585.59          | 0.00                |             |
| 12085.59                                                                    | 91.92      | 270.00    | 8602.17        | 3453.06       | 365.20              | -3453.06            | 595879.50           | 597500.04          | 0.00                | Drop        |
| 12100.00                                                                    | 91.63      | 270.00    | 8601.73        | 3467.46       | 365.20              | -3467.46            | 595879.50           | 597485.64          | 2.00                |             |
| 12131.55                                                                    | 91.00      | 270.00    | 8601.00        | 3499.00       | 365.20              | -3499.00            | 595879.50           | 597454.10          | 2.00                | T2          |
| 12200.00                                                                    | 91.00      | 270.00    | 8599.80        | 3567.44       | 365.20              | -3567.44            | 595879.50           | 597385.66          | 0.00                |             |
| 12300.00                                                                    | 91.00      | 270.00    | 8598.05        | 3667.42       | 365.20              | -3667.42            | 595879.50           | 597285.68          | 0.00                |             |
| 12400.00                                                                    | 91.00      | 270.00    | 8596.30        | 3767.41       | 365.20              | -3767.41            | 595879.50           | 597185.69          | 0.00                |             |
| 12500.00                                                                    | 91.00      | 270.00    | 8594.55        | 3867.39       | 365.20              | -3867.39            | 595879.50           | 597085.71          | 0.00                |             |
| 12600.00                                                                    | 91.00      | 270.00    | 8592.79        | 3967.38       | 365.20              | -3967.38            | 595879.50           | 596985.72          | 0.00                |             |
| 12700.00                                                                    | 91.00      | 270.00    | 8591.04        | 4067.36       | 365.20              | -4067.36            | 595879.50           | 596885.74          | 0.00                |             |
| 12800.00                                                                    | 91.00      | 270.00    | 8589.29        | 4167.35       | 365.20              | -4167.35            | 595879.50           | 596785.75          | 0.00                |             |



## 5D Plan Report

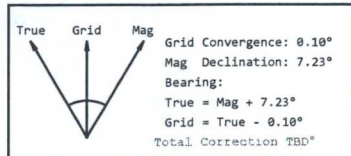
| Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |               |                     |                     |                     |                    |                     | Comment             |
|-----------------------------------------------------------------------------|------------|-----------|----------------|---------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
| MD<br>(US ft)                                                               | Inc<br>(°) | Az<br>(°) | TVD<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 ft) |                     |
| 12900.00                                                                    | 91.00      | 270.00    | 8587.54        | 4267.33       | 365.20              | -4267.33            | 595879.50           | 596685.77          | 0.00                |                     |
| 13000.00                                                                    | 91.00      | 270.00    | 8585.79        | 4367.31       | 365.20              | -4367.31            | 595879.50           | 596585.79          | 0.00                |                     |
| 13100.00                                                                    | 91.00      | 270.00    | 8584.04        | 4467.30       | 365.20              | -4467.30            | 595879.50           | 596485.80          | 0.00                |                     |
| 13200.00                                                                    | 91.00      | 270.00    | 8582.28        | 4567.28       | 365.20              | -4567.28            | 595879.50           | 596385.82          | 0.00                |                     |
| 13300.00                                                                    | 91.00      | 270.00    | 8580.53        | 4667.27       | 365.20              | -4667.27            | 595879.50           | 596285.83          | 0.00                |                     |
| 13400.00                                                                    | 91.00      | 270.00    | 8578.78        | 4767.25       | 365.20              | -4767.25            | 595879.50           | 596185.85          | 0.00                |                     |
| 13500.00                                                                    | 91.00      | 270.00    | 8577.03        | 4867.24       | 365.20              | -4867.24            | 595879.50           | 596085.86          | 0.00                |                     |
| 13501.66                                                                    | 91.00      | 270.00    | 8577.00        | 4868.90       | 365.20              | -4868.90            | 595879.50           | 596084.20          | 0.00                | 316H PBHL           |
| 13551.66                                                                    | 91.00      | 270.00    | 8576.12        | 4918.89       | 365.20              | -4918.89            | 595879.50           | 596034.21          | 0.00                | +50' for Orio Valve |

| Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor) |               |            |           |                |                     |                     |                     |                    |
|--------------------------------------------------------------------------|---------------|------------|-----------|----------------|---------------------|---------------------|---------------------|--------------------|
| Name                                                                     | MD<br>(US ft) | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | Northing<br>(US ft) | Easting<br>(US ft) |
| Target                                                                   | N/A           | 2.85       | 19.59     | 8697.00        | 6.68                | 2.38                | 595520.98           | 600955.48          |
| Landing Base                                                             | N/A           | 2.85       | 19.59     | 8713.00        | 6.68                | 2.38                | 595520.98           | 600955.48          |
| Wolfcamp                                                                 | N/A           | 2.85       | 19.59     | 8900.00        | 6.68                | 2.38                | 595520.98           | 600955.48          |
| Delaware Sands                                                           | 3099.90       | 0.00       | 0.00      | 3099.90        | -0.00               | -0.00               | 595514.30           | 600953.10          |
| 1BSC                                                                     | 3947.04       | 5.16       | 19.59     | 3945.00        | 49.90               | 17.76               | 595564.20           | 600970.86          |
| 1 BSS                                                                    | 6637.92       | 5.16       | 19.59     | 6625.00        | 277.72              | 98.86               | 595792.02           | 601051.96          |
| 2 BSC                                                                    | 6808.62       | 5.16       | 19.59     | 6795.00        | 292.18              | 104.01              | 595806.48           | 601057.11          |
| 2 BSS                                                                    | 7401.01       | 5.16       | 19.59     | 7385.00        | 342.33              | 121.86              | 595856.63           | 601074.96          |
| 3 BSC                                                                    | 7716.71       | 2.12       | 19.59     | 7700.00        | 361.50              | 128.68              | 595875.80           | 601081.78          |
| 3 BSS                                                                    | 8531.67       | 36.35      | 270.00    | 8495.00        | 365.20              | 37.09               | 595879.50           | 600990.19          |
| Landing Top                                                              | 8894.20       | 79.85      | 270.00    | 8682.00        | 365.20              | -263.35             | 595879.50           | 600689.75          |

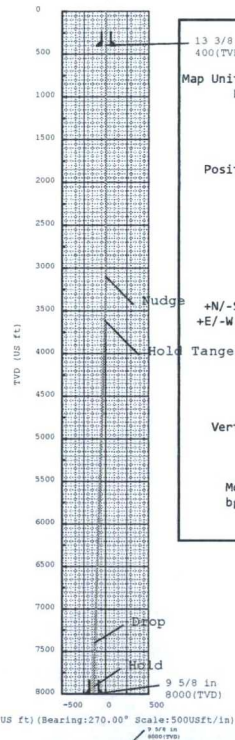
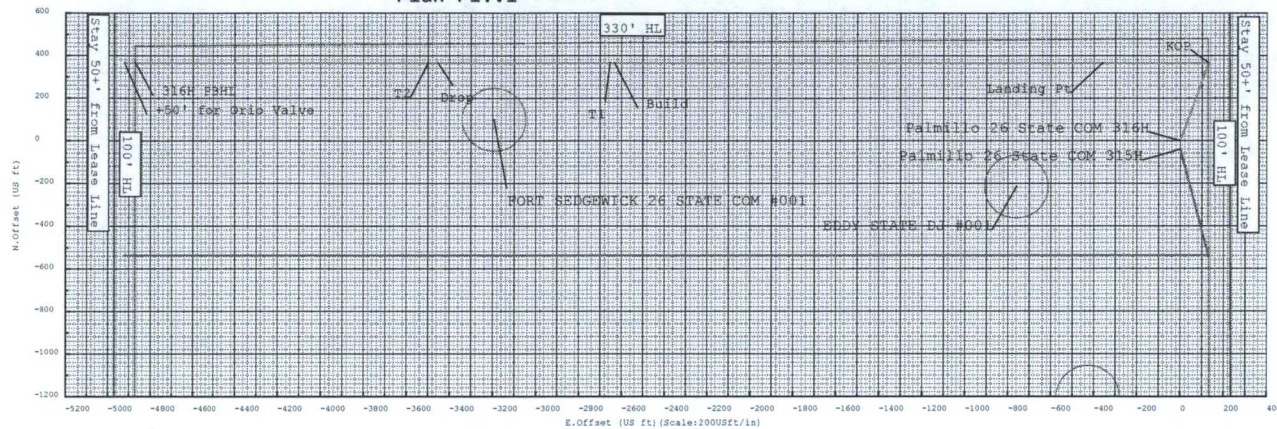




Apache Corporation  
Palmillo 26 State COM 316H  
Eddy Co., New Mexico  
Plan P1:V1



KB: 3385.00  
GL: 3359.00



**Plan Data for Palmillo 26 State COM 316H**

Field: Apache NM (Mad 83 NMEZ)  
Map Unit: USFt  
Vertical Reference Datum (VRD): Mean Sea Level  
Projected Coordinate System: NAD83 / New Mexico East (ftUS)

**Site: Palmillo 26 State COM (315H,316H)**  
Unit: USFeet  
TVD Reference:  
Company Name: Apache Corporation  
Position:  
Northing: 595474.30USft Latitude: 32.636858°  
Easting: 600953.20USft Longitude: -104.139667°  
North Reference: Grid  
Grid Convergence: 0.10°  
Elevation Above VRD: 3360.00USft  
Comment: Eddy Co. New Mexico

**Slot: Palmillo 26 State COM 316H**  
Position:  
Offset is from Site centre  
+N/-S: 40.00USft Northing: 595514.30USft Latitude: 32.636968°  
+E/-W: -0.10USft Easting: 600953.10USft Longitude: -104.139667°  
Elevation Above VRD: 3359.00USft

**Well: Palmillo 26 State COM 316H**  
Type: Main-Well  
File Number:  
Plan Folder: P1  
Plan: P1:V1  
Vertical Section: Position offset of origin from Slot centre:  
+N/-S: -0.00USft Azimuth: 270.00°  
+E/-W: -0.00USft  
Magnetic Parameters:  
Model: Field Strength: Declination: Dip: Date:  
bggm2017 48131(nT) 7.23° 60.33° 2018-05-01  
Comment: H&P 482

**Plan Data for Palmillo 26 State COM 316H**

Target Set Information:  
Name: P26 St Com 316H

Position offsets from Slot centre

| Name   | TVD     | Elevation | +N/-S  | +E/-W    | Northing  | Easting   |
|--------|---------|-----------|--------|----------|-----------|-----------|
| (USft) | (USft)  | (USft)    | (USft) | (USft)   | (USft)    | (USft)    |
| KOP    | 8212.00 | -4827.00  | 365.20 | 130.00   | 595879.50 | 601083.10 |
| LP     | 8689.30 | -5304.30  | 365.20 | -360.00  | 595879.50 | 600593.10 |
| T1     | 8629.00 | -5244.00  | 365.20 | -2654.00 | 595879.50 | 598299.10 |
| T2     | 8601.00 | -5216.00  | 365.20 | -3499.00 | 595879.50 | 597454.10 |
| PBHL   | 8577.00 | -5192.00  | 365.20 | -4868.90 | 595879.50 | 596084.20 |

**Plan Data for Palmillo 26 State COM 316H**

Formation Point Information:

| Name           | TVD     | Elevation | MD      |
|----------------|---------|-----------|---------|
| (USft)         | (USft)  | (USft)    | (USft)  |
| Target         | 8697.00 | 0.00      | -1.00   |
| Landing Base   | 8713.00 | 0.00      | -1.00   |
| Wolfcamp       | 8900.00 | 0.00      | -1.00   |
| Delaware Sands | 3099.90 | 285.10    | 3099.90 |
| 18SC           | 3945.00 | -560.00   | 3947.04 |
| 1 BSS          | 6625.00 | -3240.00  | 6637.92 |
| 2 BSC          | 6795.00 | -3410.00  | 6808.62 |
| 2 BSS          | 7385.00 | -4000.00  | 7401.01 |
| 3 BSC          | 7700.00 | -4315.00  | 7716.71 |
| 3 BSS          | 8495.00 | -5110.00  | 8531.67 |
| Landing Top    | 8682.00 | -5297.00  | 8894.20 |

**Plan Data for Palmillo 26 State COM 316H**

Plan Point Information:

DogLeg Severity Unit: °/100.00ft

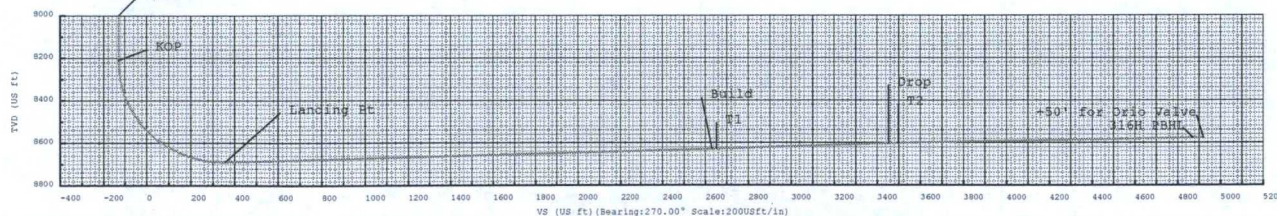
| MD       | Inc   | Az     | TVD     | +N/-S  | +E/-W    | Northing  | Easting   | VSec    | DLS    | Comments            |
|----------|-------|--------|---------|--------|----------|-----------|-----------|---------|--------|---------------------|
| (USft)   | (°)   | (°)    | (USft)  | (USft) | (USft)   | (USft)    | (USft)    | (USft)  | (USft) | (DLSU)              |
| 0.00     | 0.00  | 0.00   | -0.00   | -0.00  | -0.00    | 595514.30 | 600953.10 | 0.00    | 0.00   |                     |
| 3100.00  | 0.00  | 0.00   | 3100.00 | -0.00  | -0.00    | 595514.30 | 600953.10 | 0.00    | 0.00   | Nudge               |
| 3615.00  | 5.16  | 19.59  | 3614.91 | 21.84  | 7.77     | 595536.14 | 600960.87 | -7.77   | 1.00   | Hold Tangent        |
| 7413.15  | 5.16  | 19.59  | 7397.09 | 343.36 | 122.23   | 595857.66 | 601075.33 | -122.23 | 0.00   | Drop                |
| 7928.76  | 0.00  | 0.00   | 7912.00 | 365.20 | 130.00   | 595879.50 | 601083.10 | -130.00 | 1.00   | Hold                |
| 8228.76  | 0.00  | 0.00   | 8212.00 | 365.20 | 130.00   | 595879.50 | 601083.10 | -130.00 | 0.00   | KOP                 |
| 8991.29  | 31.50 | 270.00 | 8689.30 | 365.20 | -360.00  | 595879.50 | 600593.10 | 360.00  | 12.00  | Landing Pt          |
| 11265.14 | 91.50 | 270.00 | 8629.63 | 365.20 | -2633.06 | 595879.50 | 598320.04 | 2633.06 | 0.00   | Build               |
| 11286.09 | 91.92 | 270.00 | 8629.00 | 365.20 | -2654.00 | 595879.50 | 598299.10 | 2654.00 | 2.00   | T1                  |
| 12085.59 | 91.92 | 270.00 | 8602.17 | 365.20 | -3453.06 | 595879.50 | 597500.04 | 3453.06 | 0.00   | Drop                |
| 12131.55 | 91.00 | 270.00 | 8601.00 | 365.20 | -3499.00 | 595879.50 | 597454.10 | 3499.00 | 2.00   | T2                  |
| 13501.66 | 91.00 | 270.00 | 8577.00 | 365.20 | -4868.90 | 595879.50 | 596084.20 | 4868.90 | 0.00   | 316H PBHL           |
| 13551.66 | 91.00 | 270.00 | 8576.12 | 365.20 | -4918.89 | 595879.50 | 596034.21 | 4918.89 | 0.00   | +50' for Orio Valve |

**Plan Data for Palmillo 26 State COM 316H**

Casing Point Information:

Position offsets from Slot centre

| Name      | MD      | TVD     | +N/-S  | +E/-W  | Northing  | Easting   |
|-----------|---------|---------|--------|--------|-----------|-----------|
| (USft)    | (USft)  | (USft)  | (USft) | (USft) | (USft)    | (USft)    |
| 13 3/8 in | 400.00  | 400.00  | -0.00  | -0.00  | 595514.30 | 600953.10 |
| 9 5/8 in  | 8016.76 | 8000.00 | 365.20 | 130.00 | 595879.50 | 601083.10 |



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