



August 15, 2014

30-025-41928

Concho Resources, Inc.  
One Concho Center  
600 W. Illinois Avenue  
Midland, Texas 79701

HOBBS OCD

AUG 04 2015

RECEIVED

Attn: Kanicia Castillo

RE: **Gettysburg State Com No. 001H**

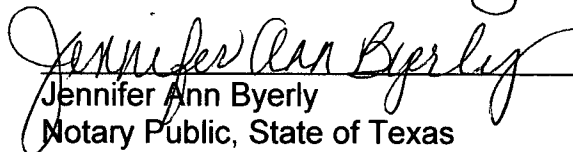
Please find enclosed a copy of the survey from 0.00' to 9700.00' ran on the above referenced well.

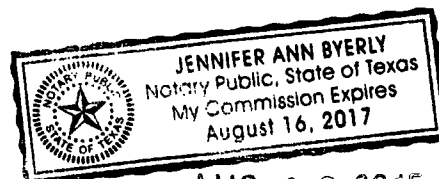
Sincerely,

  
Keith Havelka  
Operations

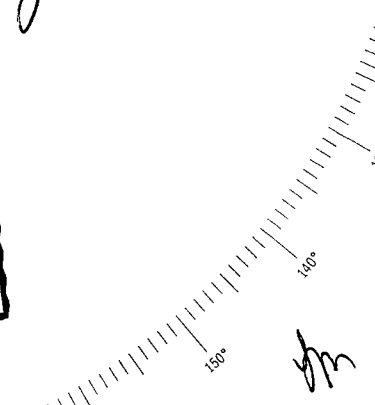
STATE OF TEXAS     §  
                                  §  
COUNTY OF NUECES §

This instrument was acknowledged before me on the 15 day of August,  
A.D., 2014, by Keith Havelka.

  
Jennifer Ann Byerly  
Notary Public, State of Texas



AUG 13 2015



Company: COG Operating, LLC (Concho)  
Lease/Well: Gettysburg State Com/No. 001H



Rig Name: Ensign #772  
State/County: New Mexico/Lea  
Latitude: 32.31, Longitude: -103.48  
GRID North is 0.46 Degrees East of True North  
VS-Azi: 0.00 Degrees



Depth Reference : 31 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut  
Minimum Curvature Method  
Report Date/Time: 8/15/2014 / 11:30

VES Survey International  
West Texas  
(432) 563-5444  
Surveyor: Neil Bates  
Gettysburg State Com No. 001H / API 30-025-41928

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00        | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 100.00                  | 0.63                 | 265.92                    | 100.00    | -0.04       | -0.55       | -0.04                     | 0.55                      | 265.92                      | 0.63                          |
| 200.00                  | 0.71                 | 256.35                    | 199.99    | -0.22       | -1.70       | -0.22                     | 1.71                      | 262.47                      | 0.14                          |
| 300.00                  | 0.34                 | 249.52                    | 299.99    | -0.48       | -2.58       | -0.48                     | 2.62                      | 259.56                      | 0.37                          |
| 400.00                  | 0.61                 | 254.89                    | 399.98    | -0.72       | -3.37       | -0.72                     | 3.45                      | 257.97                      | 0.27                          |
| 500.00                  | 0.96                 | 244.23                    | 499.97    | -1.22       | -4.64       | -1.22                     | 4.80                      | 255.26                      | 0.38                          |
| 600.00                  | 1.90                 | 253.50                    | 599.94    | -2.05       | -6.98       | -2.05                     | 7.27                      | 253.60                      | 0.97                          |
| 700.00                  | 2.94                 | 241.91                    | 699.85    | -3.73       | -10.83      | -3.73                     | 11.45                     | 250.99                      | 1.15                          |
| 800.00                  | 3.43                 | 231.02                    | 799.70    | -6.82       | -15.41      | -6.82                     | 16.85                     | 246.13                      | 0.78                          |
| 900.00                  | 3.39                 | 228.15                    | 899.52    | -10.68      | -19.94      | -10.68                    | 22.62                     | 241.84                      | 0.17                          |
| 1000.00                 | 2.23                 | 226.03                    | 999.40    | -14.01      | -23.55      | -14.01                    | 27.40                     | 239.26                      | 1.16                          |
| 1100.00                 | 1.45                 | 224.31                    | 1099.35   | -16.26      | -25.84      | -16.26                    | 30.53                     | 237.81                      | 0.79                          |
| 1200.00                 | 1.20                 | 257.27                    | 1199.32   | -17.39      | -27.74      | -17.39                    | 32.74                     | 237.91                      | 0.79                          |
| 1300.00                 | 1.13                 | 300.73                    | 1299.30   | -17.12      | -29.60      | -17.12                    | 34.20                     | 239.96                      | 0.86                          |
| 1400.00                 | 0.51                 | 271.25                    | 1399.29   | -16.61      | -30.89      | -16.61                    | 35.07                     | 241.74                      | 0.73                          |
| 1500.00                 | 0.27                 | 254.13                    | 1499.29   | -16.66      | -31.56      | -16.66                    | 35.68                     | 242.17                      | 0.26                          |
| 1600.00                 | 0.05                 | 16.61                     | 1599.29   | -16.68      | -31.77      | -16.68                    | 35.88                     | 242.30                      | 0.30                          |
| 1700.00                 | 0.07                 | 6.67                      | 1699.29   | -16.57      | -31.75      | -16.57                    | 35.81                     | 242.43                      | 0.02                          |
| 1800.00                 | 0.09                 | 288.13                    | 1799.29   | -16.48      | -31.81      | -16.48                    | 35.83                     | 242.61                      | 0.10                          |

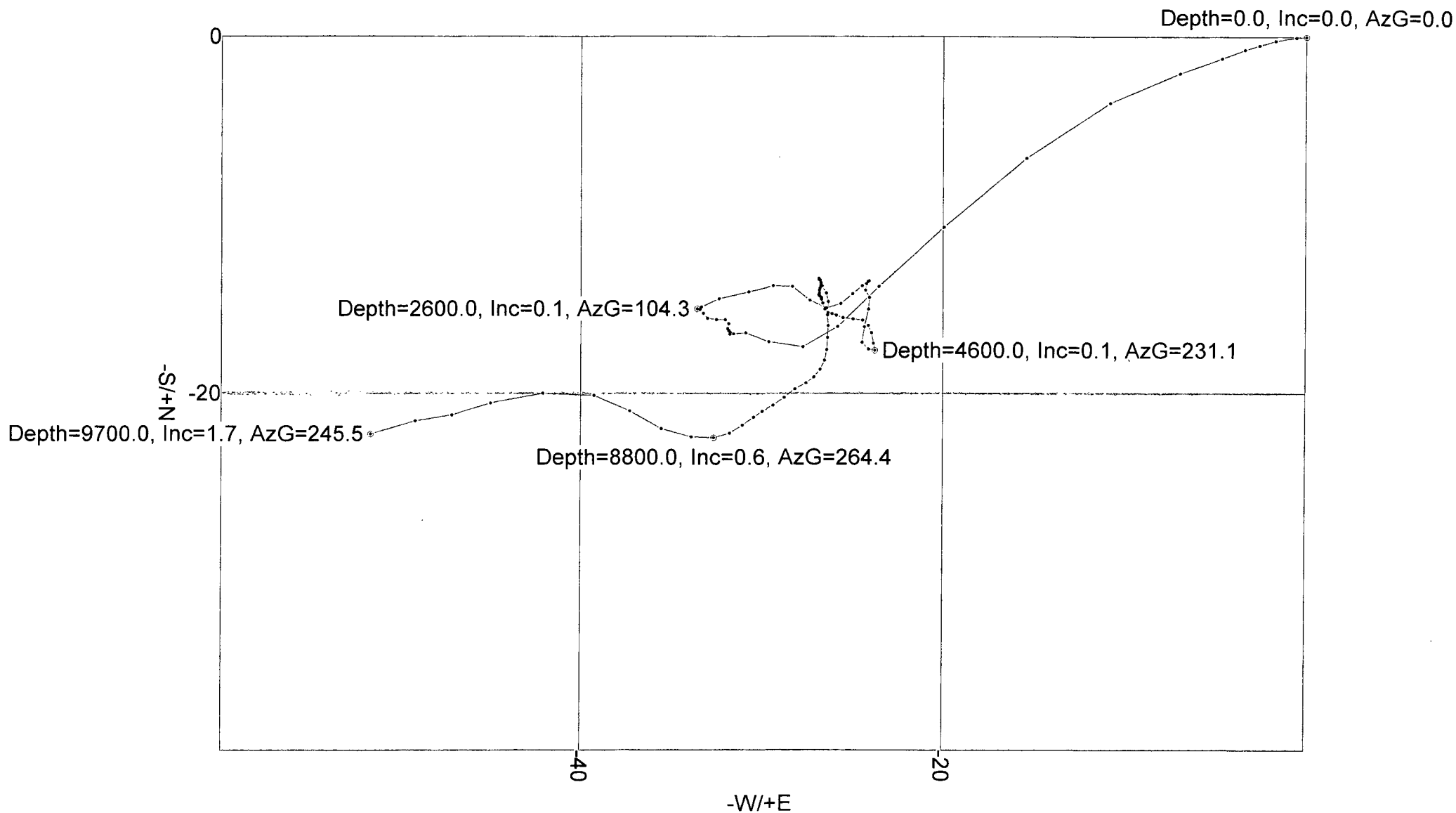
| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1900.00                 | 0.11                 | 356.79                    | 1899.29   | -16.36      | -31.89      | -16.36                    | 35.84                     | 242.84                      | 0.11                          |
| 2000.00                 | 0.22                 | 21.55                     | 1999.29   | -16.09      | -31.83      | -16.09                    | 35.66                     | 243.18                      | 0.12                          |
| 2100.00                 | 0.30                 | 278.69                    | 2099.29   | -15.87      | -32.02      | -15.87                    | 35.74                     | 243.63                      | 0.41                          |
| 2200.00                 | 0.26                 | 261.96                    | 2199.29   | -15.87      | -32.50      | -15.87                    | 36.17                     | 243.98                      | 0.09                          |
| 2300.00                 | 0.32                 | 290.90                    | 2299.29   | -15.80      | -32.99      | -15.80                    | 36.58                     | 244.41                      | 0.16                          |
| 2400.00                 | 0.21                 | 10.85                     | 2399.28   | -15.52      | -33.22      | -15.52                    | 36.67                     | 244.96                      | 0.35                          |
| 2500.00                 | 0.26                 | 281.01                    | 2499.28   | -15.30      | -33.41      | -15.30                    | 36.75                     | 245.40                      | 0.33                          |
| 2600.00                 | 0.09                 | 104.25                    | 2599.28   | -15.27      | -33.56      | -15.27                    | 36.87                     | 245.53                      | 0.35                          |
| 2700.00                 | 0.23                 | 48.96                     | 2699.28   | -15.16      | -33.33      | -15.16                    | 36.62                     | 245.54                      | 0.19                          |
| 2800.00                 | 1.02                 | 67.98                     | 2799.28   | -14.69      | -32.35      | -14.69                    | 35.53                     | 245.57                      | 0.80                          |
| 2900.00                 | 0.92                 | 86.39                     | 2899.26   | -14.31      | -30.73      | -14.31                    | 33.90                     | 245.03                      | 0.33                          |
| 3000.00                 | 0.73                 | 62.78                     | 2999.25   | -13.97      | -29.36      | -13.97                    | 32.52                     | 244.56                      | 0.38                          |
| 3100.00                 | 0.67                 | 125.45                    | 3099.25   | -14.02      | -28.31      | -14.02                    | 31.59                     | 243.66                      | 0.73                          |
| 3200.00                 | 0.73                 | 131.81                    | 3199.24   | -14.79      | -27.36      | -14.79                    | 31.10                     | 241.61                      | 0.10                          |
| 3300.00                 | 0.47                 | 91.25                     | 3299.23   | -15.22      | -26.47      | -15.22                    | 30.53                     | 240.10                      | 0.49                          |
| 3400.00                 | 0.54                 | 56.19                     | 3399.23   | -14.97      | -25.66      | -14.97                    | 29.71                     | 239.75                      | 0.31                          |
| 3500.00                 | 0.44                 | 41.55                     | 3499.23   | -14.42      | -25.01      | -14.42                    | 28.87                     | 240.04                      | 0.16                          |
| 3600.00                 | 0.37                 | 58.25                     | 3599.22   | -13.96      | -24.49      | -13.96                    | 28.19                     | 240.31                      | 0.13                          |
| 3700.00                 | 0.10                 | 36.40                     | 3699.22   | -13.73      | -24.16      | -13.73                    | 27.79                     | 240.40                      | 0.28                          |
| 3800.00                 | 0.03                 | 156.69                    | 3799.22   | -13.68      | -24.10      | -13.68                    | 27.71                     | 240.41                      | 0.12                          |
| 3900.00                 | 0.23                 | 228.76                    | 3899.22   | -13.84      | -24.24      | -13.84                    | 27.92                     | 240.27                      | 0.22                          |
| 4000.00                 | 0.29                 | 159.32                    | 3999.22   | -14.21      | -24.30      | -14.21                    | 28.15                     | 239.68                      | 0.30                          |
| 4100.00                 | 0.25                 | 142.35                    | 4099.22   | -14.62      | -24.08      | -14.62                    | 28.17                     | 238.73                      | 0.09                          |
| 4200.00                 | 0.59                 | 200.81                    | 4199.22   | -15.28      | -24.13      | -15.28                    | 28.56                     | 237.66                      | 0.50                          |
| 4300.00                 | 0.59                 | 185.85                    | 4299.21   | -16.27      | -24.36      | -16.27                    | 29.30                     | 236.27                      | 0.15                          |
| 4400.00                 | 0.42                 | 191.14                    | 4399.21   | -17.14      | -24.49      | -17.14                    | 29.89                     | 235.01                      | 0.18                          |
| 4500.00                 | 0.48                 | 92.04                     | 4499.21   | -17.51      | -24.14      | -17.51                    | 29.82                     | 234.04                      | 0.69                          |
| 4600.00                 | 0.09                 | 231.06                    | 4599.21   | -17.58      | -23.78      | -17.58                    | 29.57                     | 233.52                      | 0.56                          |
| 4700.00                 | 0.50                 | 357.98                    | 4699.21   | -17.19      | -23.86      | -17.19                    | 29.41                     | 234.22                      | 0.56                          |
| 4800.00                 | 0.21                 | 328.13                    | 4799.20   | -16.60      | -23.97      | -16.60                    | 29.15                     | 235.30                      | 0.34                          |
| 4900.00                 | 0.29                 | 341.63                    | 4899.20   | -16.20      | -24.15      | -16.20                    | 29.08                     | 236.15                      | 0.10                          |
| 5000.00                 | 0.28                 | 285.53                    | 4999.20   | -15.89      | -24.46      | -15.89                    | 29.17                     | 237.00                      | 0.27                          |
| 5100.00                 | 0.34                 | 268.76                    | 5099.20   | -15.83      | -24.99      | -15.83                    | 29.58                     | 237.65                      | 0.11                          |
| 5200.00                 | 0.31                 | 286.84                    | 5199.20   | -15.76      | -25.54      | -15.76                    | 30.01                     | 238.33                      | 0.11                          |
| 5300.00                 | 0.14                 | 299.65                    | 5299.20   | -15.62      | -25.91      | -15.62                    | 30.25                     | 238.91                      | 0.18                          |
| 5400.00                 | 0.16                 | 281.35                    | 5399.20   | -15.53      | -26.15      | -15.53                    | 30.41                     | 239.29                      | 0.05                          |
| 5500.00                 | 0.10                 | 284.84                    | 5499.20   | -15.48      | -26.37      | -15.48                    | 30.58                     | 239.58                      | 0.05                          |
| 5600.00                 | 0.23                 | 333.88                    | 5599.20   | -15.28      | -26.54      | -15.28                    | 30.63                     | 240.07                      | 0.18                          |
| 5700.00                 | 0.19                 | 352.21                    | 5699.20   | -14.94      | -26.65      | -14.94                    | 30.55                     | 240.73                      | 0.08                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 5800.00                 | 0.07                 | 311.40                    | 5799.20   | -14.73      | -26.72      | -14.73                    | 30.51                     | 241.13                      | 0.15                          |
| 5900.00                 | 0.08                 | 25.08                     | 5899.20   | -14.64      | -26.74      | -14.64                    | 30.48                     | 241.30                      | 0.09                          |
| 6000.00                 | 0.13                 | 285.71                    | 5999.20   | -14.55      | -26.82      | -14.55                    | 30.51                     | 241.52                      | 0.16                          |
| 6100.00                 | 0.07                 | 76.95                     | 6099.20   | -14.50      | -26.87      | -14.50                    | 30.53                     | 241.64                      | 0.19                          |
| 6200.00                 | 0.13                 | 341.67                    | 6199.20   | -14.38      | -26.84      | -14.38                    | 30.45                     | 241.82                      | 0.15                          |
| 6300.00                 | 0.08                 | 36.51                     | 6299.19   | -14.22      | -26.84      | -14.22                    | 30.37                     | 242.08                      | 0.10                          |
| 6400.00                 | 0.09                 | 352.06                    | 6399.19   | -14.09      | -26.81      | -14.09                    | 30.29                     | 242.27                      | 0.06                          |
| 6500.00                 | 0.10                 | 35.61                     | 6499.19   | -13.94      | -26.77      | -13.94                    | 30.18                     | 242.48                      | 0.07                          |
| 6600.00                 | 0.09                 | 330.53                    | 6599.19   | -13.80      | -26.75      | -13.80                    | 30.10                     | 242.71                      | 0.10                          |
| 6700.00                 | 0.11                 | 352.76                    | 6699.19   | -13.64      | -26.80      | -13.64                    | 30.07                     | 243.02                      | 0.04                          |
| 6800.00                 | 0.07                 | 261.65                    | 6799.19   | -13.56      | -26.87      | -13.56                    | 30.10                     | 243.22                      | 0.13                          |
| 6900.00                 | 0.11                 | 130.01                    | 6899.19   | -13.63      | -26.86      | -13.63                    | 30.12                     | 243.10                      | 0.16                          |
| 7000.00                 | 0.35                 | 163.33                    | 6999.19   | -13.98      | -26.70      | -13.98                    | 30.14                     | 242.37                      | 0.26                          |
| 7100.00                 | 0.22                 | 126.54                    | 7099.19   | -14.38      | -26.46      | -14.38                    | 30.11                     | 241.48                      | 0.22                          |
| 7200.00                 | 0.43                 | 186.68                    | 7199.19   | -14.87      | -26.35      | -14.87                    | 30.25                     | 240.57                      | 0.37                          |
| 7300.00                 | 0.42                 | 181.05                    | 7299.19   | -15.60      | -26.40      | -15.60                    | 30.67                     | 239.42                      | 0.04                          |
| 7400.00                 | 0.29                 | 169.68                    | 7399.19   | -16.21      | -26.36      | -16.21                    | 30.95                     | 238.41                      | 0.14                          |
| 7500.00                 | 0.47                 | 189.39                    | 7499.18   | -16.87      | -26.38      | -16.87                    | 31.31                     | 237.41                      | 0.22                          |
| 7600.00                 | 0.33                 | 176.39                    | 7599.18   | -17.56      | -26.43      | -17.56                    | 31.73                     | 236.41                      | 0.17                          |
| 7700.00                 | 0.38                 | 203.15                    | 7699.18   | -18.14      | -26.54      | -18.14                    | 32.15                     | 235.64                      | 0.17                          |
| 7800.00                 | 0.27                 | 212.05                    | 7799.18   | -18.65      | -26.80      | -18.65                    | 32.65                     | 235.17                      | 0.11                          |
| 7900.00                 | 0.36                 | 220.99                    | 7899.18   | -19.08      | -27.13      | -19.08                    | 33.17                     | 234.88                      | 0.10                          |
| 8000.00                 | 0.28                 | 246.49                    | 7999.18   | -19.41      | -27.55      | -19.41                    | 33.71                     | 234.83                      | 0.16                          |
| 8100.00                 | 0.51                 | 237.60                    | 8099.17   | -19.75      | -28.15      | -19.75                    | 34.39                     | 234.95                      | 0.24                          |
| 8200.00                 | 0.37                 | 221.67                    | 8199.17   | -20.23      | -28.75      | -20.23                    | 35.15                     | 234.86                      | 0.18                          |
| 8300.00                 | 0.49                 | 243.85                    | 8299.17   | -20.66      | -29.35      | -20.66                    | 35.89                     | 234.85                      | 0.20                          |
| 8400.00                 | 0.32                 | 237.08                    | 8399.16   | -21.01      | -29.97      | -21.01                    | 36.60                     | 234.97                      | 0.18                          |
| 8500.00                 | 0.34                 | 233.68                    | 8499.16   | -21.33      | -30.44      | -21.33                    | 37.17                     | 234.98                      | 0.02                          |
| 8600.00                 | 0.53                 | 235.09                    | 8599.16   | -21.77      | -31.06      | -21.77                    | 37.93                     | 234.97                      | 0.19                          |
| 8700.00                 | 0.44                 | 238.86                    | 8699.16   | -22.23      | -31.76      | -22.23                    | 38.77                     | 235.01                      | 0.09                          |
| 8800.00                 | 0.62                 | 264.39                    | 8799.15   | -22.48      | -32.62      | -22.48                    | 39.62                     | 235.43                      | 0.29                          |
| 8900.00                 | 0.82                 | 278.10                    | 8899.14   | -22.43      | -33.87      | -22.43                    | 40.62                     | 236.48                      | 0.27                          |
| 9000.00                 | 1.15                 | 290.38                    | 8999.13   | -21.98      | -35.51      | -21.98                    | 41.77                     | 238.24                      | 0.39                          |
| 9100.00                 | 1.20                 | 307.99                    | 9099.11   | -20.99      | -37.27      | -20.99                    | 42.78                     | 240.61                      | 0.36                          |
| 9200.00                 | 1.37                 | 281.16                    | 9199.08   | -20.11      | -39.27      | -20.11                    | 44.12                     | 242.88                      | 0.62                          |
| 9300.00                 | 1.90                 | 266.06                    | 9299.04   | -20.00      | -42.09      | -20.00                    | 46.60                     | 244.59                      | 0.68                          |
| 9400.00                 | 1.52                 | 250.95                    | 9399.00   | -20.54      | -45.00      | -20.54                    | 49.47                     | 245.46                      | 0.58                          |
| 9500.00                 | 1.07                 | 255.96                    | 9498.97   | -21.21      | -47.16      | -21.21                    | 51.71                     | 245.79                      | 0.47                          |
| 9600.00                 | 1.32                 | 264.57                    | 9598.95   | -21.54      | -49.22      | -21.54                    | 53.72                     | 246.36                      | 0.31                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 9700.00                 | 1.72                 | 245.46                    | 9698.92   | -22.27      | -51.73      | -22.27                    | 56.33                     | 246.70                      | 0.64                          |



VES Survey International  
West Texas  
(432) 563-5444  
Surveyor: Neil Bates  
Gettysburg State Com No. 001H / API 30-025-41928



V.E.S. Survey Date: 08/10/2014



# **Concho**

Lea, NM

Gettysburg State Com

No.1H

ST2

Design: ST2

## **Final Survey Report**

01 October, 2014





# Childress Directional Drilling

## Final Survey Report



Company: Concho  
Project: Lea, NM  
Site: Gettysburg State Com  
Well: No.1H  
Wellbore: ST2  
Design: ST2

Local Co-ordinate Reference: Well No.1H  
TVD Reference: KB @ 3461.0usft (Ensign #772)  
MD Reference: KB @ 3461.0usft (Ensign #772)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

|             |                                      |  |                              |
|-------------|--------------------------------------|--|------------------------------|
| Project     | Lea, NM                              |  |                              |
| Map System: | US State Plane 1927 (Exact solution) |  | System Datum: Mean Sea Level |
| Geo Datum:  | NAD 1927 (NADCON CONUS)              |  |                              |
| Map Zone:   | New Mexico East 3001                 |  |                              |

|                                |                      |                 |                              |
|--------------------------------|----------------------|-----------------|------------------------------|
| Site                           | Gettysburg State Com |                 |                              |
| Site Position:                 | Northing:            | 477,985.80 usft | Latitude: 32° 18' 40.421 N   |
| From: Map                      | Easting:             | 763,006.70 usft | Longitude: 103° 28' 55.328 W |
| Position Uncertainty: 0.0 usft | Slot Radius:         | 13-3/16 "       | Grid Convergence: 0.46 °     |

|                      |          |                              |                              |
|----------------------|----------|------------------------------|------------------------------|
| Well                 | No.1H    |                              |                              |
| Well Position        | +N/-S    | 0.0 usft                     | Northing: 477,985.80 usft    |
|                      | +E/-W    | 0.0 usft                     | Easting: 763,006.70 usft     |
| Position Uncertainty | 0.0 usft | Wellhead Elevation: 0.0 usft | Latitude: 32° 18' 40.421 N   |
|                      |          |                              | Longitude: 103° 28' 55.328 W |
|                      |          |                              | Ground Level: 3,433.0 usft   |

|           |            |             |                     |
|-----------|------------|-------------|---------------------|
| Wellbore  | ST2        |             |                     |
| Magnetics | Model Name | Sample Date | Declination (°)     |
|           | IGRF2010   | 2014/08/29  | 7.16                |
|           |            |             | Dip Angle (°)       |
|           |            |             | 60.20               |
|           |            |             | Field Strength (nT) |
|           |            |             | 48,357              |

|                   |                         |               |               |
|-------------------|-------------------------|---------------|---------------|
| Design            | ST2                     |               |               |
| Audit Notes:      |                         |               |               |
| Version: 1.0      | Phase: ACTUAL           | Tie On Depth: | 15,701.0      |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft)  | +E/-W (usft)  |
|                   | 0.0                     | 0.0           | 0.0           |
|                   |                         |               | Direction (°) |
|                   |                         |               | 178.92        |



# Childress Directional Drilling

## Final Survey Report



**Company:** Concho  
**Project:** Lea, NM  
**Site:** Gettysburg State Com  
**Well:** No.1H  
**Wellbore:** ST2  
**Design:** ST2

**Local Co-ordinate Reference:** Well No.1H  
**TVD Reference:** KB @ 3461.0usft (Ensign #772)  
**MD Reference:** KB @ 3461.0usft (Ensign #772)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

| Survey Program |           | Date                 | 2014/10/01 |                                  |  |
|----------------|-----------|----------------------|------------|----------------------------------|--|
| From (usft)    | To (usft) | Survey (Wellbore)    | Tool Name  | Description                      |  |
| 100.0          | 9,700.0   | Gyro (Original Hole) | NS-GYRO-MS | North sensing gyrocompassing m/s |  |
| 9,753.0        | 15,701.0  | ST1 (ST1)            | MWD        | MWD - CHILDRESS MWD              |  |
| 15,798.0       | 17,416.0  | ST2 (ST2)            | MWD        | MWD - CHILDRESS MWD              |  |

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | Northing (usft) | Easting (usft) | Latitude         | Longitude         | E/W (usft) | N/S (usft) | V. Sec (usft) |
|-----------|---------|-------------------|------------|-----------------|----------------|------------------|-------------------|------------|------------|---------------|
| 0.0       | 0.00    | 0.00              | 0.0        | 477,985.80      | 763,006.70     | 32° 18' 40.421 N | 103° 28' 55.328 W | 0.0        | 0.0        | 0.0           |
| 100.0     | 0.63    | 265.92            | 100.0      | 477,985.76      | 763,006.15     | 32° 18' 40.421 N | 103° 28' 55.334 W | -0.5       | 0.0        | 0.0           |
| 200.0     | 0.71    | 256.35            | 200.0      | 477,985.58      | 763,005.00     | 32° 18' 40.419 N | 103° 28' 55.348 W | -1.7       | -0.2       | 0.2           |
| 300.0     | 0.34    | 249.52            | 300.0      | 477,985.33      | 763,004.12     | 32° 18' 40.417 N | 103° 28' 55.358 W | -2.6       | -0.5       | 0.4           |
| 400.0     | 0.61    | 254.89            | 400.0      | 477,985.08      | 763,003.33     | 32° 18' 40.415 N | 103° 28' 55.367 W | -3.4       | -0.7       | 0.7           |
| 500.0     | 0.96    | 244.23            | 500.0      | 477,984.58      | 763,002.06     | 32° 18' 40.410 N | 103° 28' 55.382 W | -4.6       | -1.2       | 1.1           |
| 600.0     | 1.90    | 253.50            | 599.9      | 477,983.74      | 762,999.72     | 32° 18' 40.402 N | 103° 28' 55.410 W | -7.0       | -2.1       | 1.9           |
| 700.0     | 2.94    | 241.91            | 699.9      | 477,982.07      | 762,995.86     | 32° 18' 40.385 N | 103° 28' 55.455 W | -10.8      | -3.7       | 3.5           |
| 800.0     | 3.43    | 231.02            | 799.7      | 477,978.98      | 762,991.28     | 32° 18' 40.355 N | 103° 28' 55.508 W | -15.4      | -6.8       | 6.5           |
| 900.0     | 3.39    | 228.15            | 899.5      | 477,975.12      | 762,986.75     | 32° 18' 40.317 N | 103° 28' 55.561 W | -20.0      | -10.7      | 10.3          |
| 1,000.0   | 2.23    | 226.03            | 999.4      | 477,971.80      | 762,983.15     | 32° 18' 40.285 N | 103° 28' 55.604 W | -23.6      | -14.0      | 13.6          |
| 1,100.0   | 1.45    | 224.31            | 1,099.3    | 477,969.54      | 762,980.86     | 32° 18' 40.263 N | 103° 28' 55.631 W | -25.8      | -16.3      | 15.8          |
| 1,200.0   | 1.20    | 257.27            | 1,199.3    | 477,968.41      | 762,978.96     | 32° 18' 40.251 N | 103° 28' 55.653 W | -27.7      | -17.4      | 16.9          |
| 1,300.0   | 1.13    | 300.73            | 1,299.3    | 477,968.68      | 762,977.09     | 32° 18' 40.254 N | 103° 28' 55.675 W | -29.6      | -17.1      | 16.6          |
| 1,400.0   | 0.51    | 271.25            | 1,399.3    | 477,969.19      | 762,975.80     | 32° 18' 40.260 N | 103° 28' 55.690 W | -30.9      | -16.6      | 16.0          |
| 1,500.0   | 0.27    | 254.13            | 1,499.3    | 477,969.14      | 762,975.12     | 32° 18' 40.259 N | 103° 28' 55.697 W | -31.6      | -16.7      | 16.1          |
| 1,600.0   | 0.05    | 16.61             | 1,599.3    | 477,969.12      | 762,974.91     | 32° 18' 40.259 N | 103° 28' 55.700 W | -31.8      | -16.7      | 16.1          |
| 1,700.0   | 0.07    | 6.67              | 1,699.3    | 477,969.22      | 762,974.93     | 32° 18' 40.260 N | 103° 28' 55.700 W | -31.8      | -16.6      | 16.0          |
| 1,800.0   | 0.09    | 288.13            | 1,799.3    | 477,969.30      | 762,974.86     | 32° 18' 40.261 N | 103° 28' 55.700 W | -31.8      | -16.5      | 15.9          |
| 1,900.0   | 0.11    | 356.79            | 1,899.3    | 477,969.42      | 762,974.78     | 32° 18' 40.262 N | 103° 28' 55.701 W | -31.9      | -16.4      | 15.8          |



# Childress Directional Drilling

## Final Survey Report



Company: Concho  
 Project: Lea, NM  
 Site: Gettysburg State Com  
 Well: No.1H  
 Wellbore: ST2  
 Design: ST2

Local Co-ordinate Reference: Well No.1H  
 TVD Reference: KB @ 3461.0usft (Ensign #772)  
 MD Reference: KB @ 3461.0usft (Ensign #772)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 5000.1 Single User Db

| Survey       |            |                      |               |                    |                   |                  |                   |               |               |                  |
|--------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
| 2,000.0      | 0.22       | 21.55                | 1,999.3       | 477,969.70         | 762,974.85        | 32° 18' 40.265 N | 103° 28' 55.701 W | -31.9         | -16.1         | 15.5             |
| 2,100.0      | 0.30       | 278.69               | 2,099.3       | 477,969.92         | 762,974.66        | 32° 18' 40.267 N | 103° 28' 55.703 W | -32.0         | -15.9         | 15.3             |
| 2,200.0      | 0.26       | 261.96               | 2,199.3       | 477,969.92         | 762,974.18        | 32° 18' 40.267 N | 103° 28' 55.708 W | -32.5         | -15.9         | 15.3             |
| 2,300.0      | 0.32       | 290.90               | 2,299.3       | 477,969.99         | 762,973.69        | 32° 18' 40.268 N | 103° 28' 55.714 W | -33.0         | -15.8         | 15.2             |
| 2,400.0      | 0.21       | 10.85                | 2,399.3       | 477,970.27         | 762,973.46        | 32° 18' 40.270 N | 103° 28' 55.717 W | -33.2         | -15.5         | 14.9             |
| 2,500.0      | 0.26       | 281.01               | 2,499.3       | 477,970.50         | 762,973.28        | 32° 18' 40.273 N | 103° 28' 55.719 W | -33.4         | -15.3         | 14.7             |
| 2,600.0      | 0.09       | 104.25               | 2,599.3       | 477,970.52         | 762,973.13        | 32° 18' 40.273 N | 103° 28' 55.721 W | -33.6         | -15.3         | 14.6             |
| 2,700.0      | 0.23       | 48.96                | 2,699.3       | 477,970.63         | 762,973.36        | 32° 18' 40.274 N | 103° 28' 55.718 W | -33.3         | -15.2         | 14.5             |
| 2,800.0      | 1.02       | 67.98                | 2,799.3       | 477,971.10         | 762,974.33        | 32° 18' 40.278 N | 103° 28' 55.706 W | -32.4         | -14.7         | 14.1             |
| 2,900.0      | 0.92       | 86.39                | 2,899.3       | 477,971.48         | 762,975.96        | 32° 18' 40.282 N | 103° 28' 55.687 W | -30.7         | -14.3         | 13.7             |
| 3,000.0      | 0.73       | 62.78                | 2,999.3       | 477,971.82         | 762,977.33        | 32° 18' 40.285 N | 103° 28' 55.672 W | -29.4         | -14.0         | 13.4             |
| 3,100.0      | 0.67       | 125.45               | 3,099.2       | 477,971.78         | 762,978.37        | 32° 18' 40.285 N | 103° 28' 55.659 W | -28.3         | -14.0         | 13.5             |
| 3,200.0      | 0.73       | 131.81               | 3,199.2       | 477,971.01         | 762,979.32        | 32° 18' 40.277 N | 103° 28' 55.648 W | -27.4         | -14.8         | 14.3             |
| 3,300.0      | 0.47       | 91.25                | 3,299.2       | 477,970.58         | 762,980.21        | 32° 18' 40.273 N | 103° 28' 55.638 W | -26.5         | -15.2         | 14.7             |
| 3,400.0      | 0.54       | 56.19                | 3,399.2       | 477,970.83         | 762,981.01        | 32° 18' 40.275 N | 103° 28' 55.629 W | -25.7         | -15.0         | 14.5             |
| 3,500.0      | 0.44       | 41.55                | 3,499.2       | 477,971.38         | 762,981.65        | 32° 18' 40.281 N | 103° 28' 55.621 W | -25.0         | -14.4         | 13.9             |
| 3,600.0      | 0.37       | 58.25                | 3,599.2       | 477,971.84         | 762,982.18        | 32° 18' 40.285 N | 103° 28' 55.615 W | -24.5         | -14.0         | 13.5             |
| 3,700.0      | 0.10       | 36.40                | 3,699.2       | 477,972.08         | 762,982.51        | 32° 18' 40.288 N | 103° 28' 55.611 W | -24.2         | -13.7         | 13.3             |
| 3,800.0      | 0.03       | 156.69               | 3,799.2       | 477,972.12         | 762,982.57        | 32° 18' 40.288 N | 103° 28' 55.610 W | -24.1         | -13.7         | 13.2             |
| 3,900.0      | 0.23       | 228.76               | 3,899.2       | 477,971.97         | 762,982.43        | 32° 18' 40.286 N | 103° 28' 55.612 W | -24.3         | -13.8         | 13.4             |
| 4,000.0      | 0.29       | 159.32               | 3,999.2       | 477,971.60         | 762,982.37        | 32° 18' 40.283 N | 103° 28' 55.613 W | -24.3         | -14.2         | 13.7             |
| 4,100.0      | 0.25       | 142.35               | 4,099.2       | 477,971.19         | 762,982.59        | 32° 18' 40.279 N | 103° 28' 55.610 W | -24.1         | -14.6         | 14.2             |
| 4,200.0      | 0.59       | 200.81               | 4,199.2       | 477,970.54         | 762,982.54        | 32° 18' 40.272 N | 103° 28' 55.611 W | -24.2         | -15.3         | 14.8             |
| 4,300.0      | 0.59       | 185.85               | 4,299.2       | 477,969.54         | 762,982.31        | 32° 18' 40.262 N | 103° 28' 55.614 W | -24.4         | -16.3         | 15.8             |
| 4,400.0      | 0.42       | 191.14               | 4,399.2       | 477,968.67         | 762,982.18        | 32° 18' 40.254 N | 103° 28' 55.615 W | -24.5         | -17.1         | 16.7             |
| 4,500.0      | 0.48       | 92.04                | 4,499.2       | 477,968.30         | 762,982.53        | 32° 18' 40.250 N | 103° 28' 55.611 W | -24.2         | -17.5         | 17.0             |
| 4,600.0      | 0.09       | 231.06               | 4,599.2       | 477,968.23         | 762,982.89        | 32° 18' 40.249 N | 103° 28' 55.607 W | -23.8         | -17.6         | 17.1             |



# Childress Directional Drilling

## Final Survey Report



Company: Concho  
 Project: Lea, NM  
 Site: Gettysburg State Cor  
 Well: No.1H  
 Wellbore: ST2  
 Design: ST2

Local Co-ordinate Reference:  
 TVD Reference:  
 MD Reference:  
 North Reference:  
 Survey Calculation Method:  
 Database:

Well No.1H  
 KB @ 3461.0usft (Ensign #772)  
 KB @ 3461.0usft (Ensign #772)  
 Grid  
 Minimum Curvature  
 EDM 5000.1 Single User Db

### Survey

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
|--------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| 4,700.0      | 0.50       | 357.98               | 4,699.2       | 477,968.62         | 762,982.81        | 32° 18' 40.253 N | 103° 28' 55.608 W | -23.9         | -17.2         | 16.7             |
| 4,800.0      | 0.21       | 328.13               | 4,799.2       | 477,969.21         | 762,982.70        | 32° 18' 40.259 N | 103° 28' 55.609 W | -24.0         | -16.6         | 16.1             |
| 4,900.0      | 0.29       | 341.63               | 4,899.2       | 477,969.61         | 762,982.52        | 32° 18' 40.263 N | 103° 28' 55.611 W | -24.2         | -16.2         | 15.7             |
| 5,000.0      | 0.28       | 285.53               | 4,999.2       | 477,969.91         | 762,982.21        | 32° 18' 40.266 N | 103° 28' 55.615 W | -24.5         | -15.9         | 15.4             |
| 5,100.0      | 0.34       | 268.76               | 5,099.2       | 477,969.97         | 762,981.68        | 32° 18' 40.267 N | 103° 28' 55.621 W | -25.0         | -15.8         | 15.4             |
| 5,200.0      | 0.31       | 286.84               | 5,199.2       | 477,970.04         | 762,981.12        | 32° 18' 40.268 N | 103° 28' 55.627 W | -25.6         | -15.8         | 15.3             |
| 5,300.0      | 0.14       | 299.65               | 5,299.2       | 477,970.18         | 762,980.76        | 32° 18' 40.269 N | 103° 28' 55.632 W | -25.9         | -15.6         | 15.1             |
| 5,400.0      | 0.16       | 281.35               | 5,399.2       | 477,970.27         | 762,980.51        | 32° 18' 40.270 N | 103° 28' 55.635 W | -26.2         | -15.5         | 15.0             |
| 5,500.0      | 0.10       | 284.84               | 5,499.2       | 477,970.32         | 762,980.29        | 32° 18' 40.270 N | 103° 28' 55.637 W | -26.4         | -15.5         | 15.0             |
| 5,600.0      | 0.23       | 333.88               | 5,599.2       | 477,970.52         | 762,980.12        | 32° 18' 40.272 N | 103° 28' 55.639 W | -26.6         | -15.3         | 14.8             |
| 5,700.0      | 0.19       | 352.21               | 5,699.2       | 477,970.87         | 762,980.01        | 32° 18' 40.276 N | 103° 28' 55.640 W | -26.7         | -14.9         | 14.4             |
| 5,800.0      | 0.07       | 311.40               | 5,799.2       | 477,971.07         | 762,979.94        | 32° 18' 40.278 N | 103° 28' 55.641 W | -26.8         | -14.7         | 14.2             |
| 5,900.0      | 0.08       | 25.08                | 5,899.2       | 477,971.17         | 762,979.92        | 32° 18' 40.279 N | 103° 28' 55.641 W | -26.8         | -14.6         | 14.1             |
| 6,000.0      | 0.13       | 285.71               | 5,999.2       | 477,971.27         | 762,979.84        | 32° 18' 40.280 N | 103° 28' 55.642 W | -26.9         | -14.5         | 14.0             |
| 6,100.0      | 0.07       | 76.95                | 6,099.2       | 477,971.31         | 762,979.79        | 32° 18' 40.280 N | 103° 28' 55.643 W | -26.9         | -14.5         | 14.0             |
| 6,200.0      | 0.13       | 341.67               | 6,199.2       | 477,971.43         | 762,979.82        | 32° 18' 40.281 N | 103° 28' 55.643 W | -26.9         | -14.4         | 13.9             |
| 6,300.0      | 0.08       | 36.51                | 6,299.2       | 477,971.60         | 762,979.82        | 32° 18' 40.283 N | 103° 28' 55.642 W | -26.9         | -14.2         | 13.7             |
| 6,400.0      | 0.09       | 352.06               | 6,399.2       | 477,971.73         | 762,979.85        | 32° 18' 40.284 N | 103° 28' 55.642 W | -26.8         | -14.1         | 13.6             |
| 6,500.0      | 0.10       | 35.61                | 6,499.2       | 477,971.88         | 762,979.89        | 32° 18' 40.286 N | 103° 28' 55.642 W | -26.8         | -13.9         | 13.4             |
| 6,600.0      | 0.09       | 330.53               | 6,599.2       | 477,972.02         | 762,979.91        | 32° 18' 40.287 N | 103° 28' 55.641 W | -26.8         | -13.8         | 13.3             |
| 6,700.0      | 0.11       | 352.76               | 6,699.2       | 477,972.18         | 762,979.86        | 32° 18' 40.289 N | 103° 28' 55.642 W | -26.8         | -13.6         | 13.1             |
| 6,800.0      | 0.07       | 261.65               | 6,799.2       | 477,972.27         | 762,979.78        | 32° 18' 40.290 N | 103° 28' 55.643 W | -26.9         | -13.5         | 13.0             |
| 6,900.0      | 0.11       | 130.01               | 6,899.2       | 477,972.20         | 762,979.80        | 32° 18' 40.289 N | 103° 28' 55.643 W | -26.9         | -13.6         | 13.1             |
| 7,000.0      | 0.35       | 163.33               | 6,999.2       | 477,971.85         | 762,979.96        | 32° 18' 40.285 N | 103° 28' 55.641 W | -26.7         | -14.0         | 13.4             |
| 7,100.0      | 0.22       | 126.54               | 7,099.2       | 477,971.44         | 762,980.20        | 32° 18' 40.281 N | 103° 28' 55.638 W | -26.5         | -14.4         | 13.9             |
| 7,200.0      | 0.43       | 186.68               | 7,199.2       | 477,970.95         | 762,980.31        | 32° 18' 40.277 N | 103° 28' 55.637 W | -26.4         | -14.8         | 14.3             |
| 7,300.0      | 0.42       | 181.05               | 7,299.2       | 477,970.21         | 762,980.26        | 32° 18' 40.269 N | 103° 28' 55.638 W | -26.4         | -15.6         | 15.1             |



Childress Directional Drilling  
Final Survey Report



Company: Concho  
Project: Lea, NM  
Site: Gettysburg State Com  
Well: No.1H  
Wellbore: ST2  
Design: ST2

Local Co-ordinate Reference: Well No.1H  
TVD Reference: KB @ 3461.0usft (Ensign #772)  
MD Reference: KB @ 3461.0usft (Ensign #772)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

| Survey       |            |                      |               |                    |                   |                  |                   |               |               |                  |
|--------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
| 7,400.0      | 0.29       | 169.68               | 7,399.2       | 477,969.60         | 762,980.30        | 32° 18' 40.263 N | 103° 28' 55.637 W | -26.4         | -16.2         | 15.7             |
| 7,500.0      | 0.47       | 189.39               | 7,499.2       | 477,968.94         | 762,980.28        | 32° 18' 40.257 N | 103° 28' 55.637 W | -26.4         | -16.9         | 16.4             |
| 7,600.0      | 0.33       | 176.39               | 7,599.2       | 477,968.25         | 762,980.23        | 32° 18' 40.250 N | 103° 28' 55.638 W | -26.5         | -17.5         | 17.0             |
| 7,700.0      | 0.38       | 203.15               | 7,699.2       | 477,967.66         | 762,980.12        | 32° 18' 40.244 N | 103° 28' 55.639 W | -26.6         | -18.1         | 17.6             |
| 7,800.0      | 0.27       | 212.05               | 7,799.2       | 477,967.15         | 762,979.86        | 32° 18' 40.239 N | 103° 28' 55.642 W | -26.8         | -18.6         | 18.1             |
| 7,900.0      | 0.36       | 220.99               | 7,899.2       | 477,966.72         | 762,979.53        | 32° 18' 40.235 N | 103° 28' 55.646 W | -27.2         | -19.1         | 18.6             |
| 8,000.0      | 0.28       | 246.49               | 7,999.2       | 477,966.38         | 762,979.10        | 32° 18' 40.231 N | 103° 28' 55.651 W | -27.6         | -19.4         | 18.9             |
| 8,100.0      | 0.51       | 237.60               | 8,099.2       | 477,966.05         | 762,978.50        | 32° 18' 40.228 N | 103° 28' 55.658 W | -28.2         | -19.8         | 19.2             |
| 8,200.0      | 0.37       | 221.67               | 8,199.2       | 477,965.57         | 762,977.91        | 32° 18' 40.223 N | 103° 28' 55.665 W | -28.8         | -20.2         | 19.7             |
| 8,300.0      | 0.49       | 243.85               | 8,299.2       | 477,965.14         | 762,977.31        | 32° 18' 40.219 N | 103° 28' 55.672 W | -29.4         | -20.7         | 20.1             |
| 8,400.0      | 0.32       | 237.08               | 8,399.2       | 477,964.80         | 762,976.69        | 32° 18' 40.216 N | 103° 28' 55.680 W | -30.0         | -21.0         | 20.4             |
| 8,500.0      | 0.34       | 233.68               | 8,499.2       | 477,964.47         | 762,976.22        | 32° 18' 40.213 N | 103° 28' 55.685 W | -30.5         | -21.3         | 20.8             |
| 8,600.0      | 0.53       | 235.09               | 8,599.2       | 477,964.03         | 762,975.60        | 32° 18' 40.208 N | 103° 28' 55.692 W | -31.1         | -21.8         | 21.2             |
| 8,700.0      | 0.44       | 238.86               | 8,699.2       | 477,963.57         | 762,974.89        | 32° 18' 40.204 N | 103° 28' 55.701 W | -31.8         | -22.2         | 21.6             |
| 8,800.0      | 0.62       | 264.39               | 8,799.2       | 477,963.31         | 762,974.02        | 32° 18' 40.201 N | 103° 28' 55.711 W | -32.7         | -22.5         | 21.9             |
| 8,900.0      | 0.82       | 278.10               | 8,899.1       | 477,963.36         | 762,972.78        | 32° 18' 40.202 N | 103° 28' 55.725 W | -33.9         | -22.4         | 21.8             |
| 9,000.0      | 1.15       | 290.38               | 8,999.1       | 477,963.81         | 762,971.13        | 32° 18' 40.207 N | 103° 28' 55.744 W | -35.6         | -22.0         | 21.3             |
| 9,100.0      | 1.20       | 307.99               | 9,099.1       | 477,964.81         | 762,969.36        | 32° 18' 40.217 N | 103° 28' 55.765 W | -37.3         | -21.0         | 20.3             |
| 9,200.0      | 1.37       | 281.16               | 9,199.1       | 477,965.68         | 762,967.36        | 32° 18' 40.225 N | 103° 28' 55.788 W | -39.3         | -20.1         | 19.4             |
| 9,300.0      | 1.90       | 266.06               | 9,299.0       | 477,965.80         | 762,964.54        | 32° 18' 40.227 N | 103° 28' 55.821 W | -42.2         | -20.0         | 19.2             |
| 9,400.0      | 1.52       | 250.95               | 9,399.0       | 477,965.25         | 762,961.63        | 32° 18' 40.222 N | 103° 28' 55.855 W | -45.1         | -20.5         | 19.7             |
| 9,500.0      | 1.07       | 255.96               | 9,499.0       | 477,964.59         | 762,959.47        | 32° 18' 40.215 N | 103° 28' 55.880 W | -47.2         | -21.2         | 20.3             |
| 9,600.0      | 1.32       | 264.57               | 9,599.0       | 477,964.26         | 762,957.42        | 32° 18' 40.212 N | 103° 28' 55.904 W | -49.3         | -21.5         | 20.6             |
| 9,700.0      | 1.72       | 245.46               | 9,698.9       | 477,963.53         | 762,954.91        | 32° 18' 40.205 N | 103° 28' 55.934 W | -51.8         | -22.3         | 21.3             |
| 9,753.0      | 2.20       | 183.70               | 9,751.9       | 477,962.18         | 762,954.12        | 32° 18' 40.192 N | 103° 28' 55.943 W | -52.6         | -23.6         | 22.6             |
| 9,785.0      | 7.70       | 149.20               | 9,783.8       | 477,959.72         | 762,955.18        | 32° 18' 40.167 N | 103° 28' 55.931 W | -51.5         | -26.1         | 25.1             |
| 9,816.0      | 14.60      | 147.30               | 9,814.2       | 477,954.65         | 762,958.35        | 32° 18' 40.117 N | 103° 28' 55.894 W | -48.3         | -31.2         | 30.2             |



# Childress Directional Drilling Final Survey Report



Company: Concho  
Project: Lea, NM  
Site: Gettysburg State Com  
Well: No.1H  
Wellbore: ST2  
Design: ST2

Local Co-ordinate Reference: Well No.1H  
TVD Reference: KB @ 3461.0usft (Ensign #772)  
MD Reference: KB @ 3461.0usft (Ensign #772)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

| Survey             |            |                      |               |                    |                   |                  |                   |               |               |                  |
|--------------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| MD<br>(usft)       | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
| 9,847.0            | 20.20      | 148.90               | 9,843.7       | 477,946.77         | 762,963.23        | 32° 18' 40.039 N | 103° 28' 55.838 W | -43.5         | -39.0         | 38.2             |
| 9,879.0            | 25.20      | 149.70               | 9,873.2       | 477,936.15         | 762,969.53        | 32° 18' 39.933 N | 103° 28' 55.766 W | -37.2         | -49.7         | 48.9             |
| 9,910.0            | 29.10      | 151.70               | 9,900.8       | 477,923.81         | 762,976.43        | 32° 18' 39.810 N | 103° 28' 55.686 W | -30.3         | -62.0         | 61.4             |
| 9,942.0            | 31.30      | 154.80               | 9,928.5       | 477,909.43         | 762,983.66        | 32° 18' 39.668 N | 103° 28' 55.603 W | -23.0         | -76.4         | 75.9             |
| 9,974.0            | 32.10      | 160.50               | 9,955.7       | 477,893.89         | 762,990.04        | 32° 18' 39.513 N | 103° 28' 55.531 W | -16.7         | -91.9         | 91.6             |
| 10,005.0           | 34.00      | 160.90               | 9,981.7       | 477,877.94         | 762,995.63        | 32° 18' 39.355 N | 103° 28' 55.467 W | -11.1         | -107.9        | 107.6            |
| 10,036.0           | 34.20      | 165.60               | 10,007.4      | 477,861.31         | 763,000.63        | 32° 18' 39.190 N | 103° 28' 55.410 W | -6.1          | -124.5        | 124.4            |
| 10,068.0           | 34.50      | 171.10               | 10,033.8      | 477,843.64         | 763,004.27        | 32° 18' 39.015 N | 103° 28' 55.369 W | -2.4          | -142.2        | 142.1            |
| 10,099.0           | 34.70      | 174.90               | 10,059.3      | 477,826.17         | 763,006.42        | 32° 18' 38.842 N | 103° 28' 55.346 W | -0.3          | -159.6        | 159.6            |
| 10,131.0           | 36.40      | 175.30               | 10,085.3      | 477,807.64         | 763,008.00        | 32° 18' 38.658 N | 103° 28' 55.329 W | 1.3           | -178.2        | 178.2            |
| 10,163.0           | 39.50      | 173.90               | 10,110.6      | 477,788.05         | 763,009.86        | 32° 18' 38.464 N | 103° 28' 55.309 W | 3.2           | -197.8        | 197.8            |
| 10,195.0           | 43.00      | 173.40               | 10,134.6      | 477,767.08         | 763,012.20        | 32° 18' 38.257 N | 103° 28' 55.284 W | 5.5           | -218.7        | 218.8            |
| 10,226.0           | 46.30      | 174.30               | 10,156.7      | 477,745.43         | 763,014.53        | 32° 18' 38.042 N | 103° 28' 55.259 W | 7.8           | -240.4        | 240.5            |
| 10,257.0           | 50.70      | 175.30               | 10,177.2      | 477,722.31         | 763,016.63        | 32° 18' 37.813 N | 103° 28' 55.237 W | 9.9           | -263.5        | 263.6            |
| 10,289.0           | 54.00      | 175.10               | 10,196.8      | 477,697.07         | 763,018.75        | 32° 18' 37.563 N | 103° 28' 55.214 W | 12.0          | -288.7        | 288.9            |
| 10,321.0           | 55.90      | 174.90               | 10,215.1      | 477,670.97         | 763,021.03        | 32° 18' 37.305 N | 103° 28' 55.190 W | 14.3          | -314.8        | 315.0            |
| 10,351.0           | 59.00      | 175.50               | 10,231.3      | 477,645.77         | 763,023.14        | 32° 18' 37.056 N | 103° 28' 55.168 W | 16.4          | -340.0        | 340.3            |
| 10,383.0           | 63.30      | 175.80               | 10,246.7      | 477,617.83         | 763,025.27        | 32° 18' 36.779 N | 103° 28' 55.146 W | 18.6          | -368.0        | 368.3            |
| 10,415.0           | 66.10      | 175.50               | 10,260.4      | 477,588.99         | 763,027.46        | 32° 18' 36.493 N | 103° 28' 55.123 W | 20.8          | -396.8        | 397.1            |
| 10,446.0           | 69.00      | 175.70               | 10,272.2      | 477,560.43         | 763,029.66        | 32° 18' 36.210 N | 103° 28' 55.100 W | 23.0          | -425.4        | 425.7            |
| 10,478.0           | 72.70      | 175.50               | 10,282.7      | 477,530.29         | 763,031.98        | 32° 18' 35.912 N | 103° 28' 55.076 W | 25.3          | -455.5        | 455.9            |
| 10,501.7           | 74.23      | 175.50               | 10,289.5      | 477,507.62         | 763,033.76        | 32° 18' 35.688 N | 103° 28' 55.057 W | 27.1          | -478.2        | 478.6            |
| Getty St Com 1H LP |            |                      |               |                    |                   |                  |                   |               |               |                  |
| 10,512.0           | 74.90      | 175.50               | 10,292.2      | 477,497.74         | 763,034.54        | 32° 18' 35.590 N | 103° 28' 55.049 W | 27.8          | -488.1        | 488.5            |
| 10,543.0           | 77.50      | 176.90               | 10,299.6      | 477,467.71         | 763,036.53        | 32° 18' 35.292 N | 103° 28' 55.028 W | 29.8          | -518.1        | 518.6            |
| 10,574.0           | 79.50      | 178.30               | 10,305.8      | 477,437.36         | 763,037.80        | 32° 18' 34.992 N | 103° 28' 55.016 W | 31.1          | -548.4        | 548.9            |
| 10,606.0           | 82.00      | 178.30               | 10,310.9      | 477,405.79         | 763,038.74        | 32° 18' 34.680 N | 103° 28' 55.008 W | 32.0          | -580.0        | 580.5            |



# Childress Directional Drilling Final Survey Report



Company: Concho  
Project: Lea, NM  
Site: Gettysburg State Com  
Well: No.1H  
Wellbore: ST2  
Design: ST2

Local Co-ordinate Reference: Well No.1H  
TVD Reference: KB @ 3461.0usft (Ensign #772)  
MD Reference: KB @ 3461.0usft (Ensign #772)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

| Survey       |            |                      |               |                    |                   |                  |                   |               |               |                  |
|--------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
| 10,638.0     | 83.90      | 178.40               | 10,314.9      | 477,374.05         | 763,039.66        | 32° 18' 34.365 N | 103° 28' 55.001 W | 33.0          | -611.8        | 612.3            |
| 10,670.0     | 86.20      | 178.40               | 10,317.6      | 477,342.18         | 763,040.55        | 32° 18' 34.050 N | 103° 28' 54.993 W | 33.8          | -643.6        | 644.1            |
| 10,701.0     | 88.30      | 178.10               | 10,319.1      | 477,311.23         | 763,041.49        | 32° 18' 33.744 N | 103° 28' 54.985 W | 34.8          | -674.6        | 675.1            |
| 10,794.0     | 91.10      | 177.90               | 10,319.6      | 477,218.30         | 763,044.74        | 32° 18' 32.824 N | 103° 28' 54.956 W | 38.0          | -767.5        | 768.1            |
| 10,888.0     | 90.70      | 179.90               | 10,318.1      | 477,124.33         | 763,046.54        | 32° 18' 31.894 N | 103° 28' 54.944 W | 39.8          | -861.5        | 862.1            |
| 10,983.0     | 88.90      | 179.50               | 10,318.4      | 477,029.34         | 763,047.04        | 32° 18' 30.954 N | 103° 28' 54.947 W | 40.3          | -956.5        | 957.1            |
| 11,076.0     | 89.80      | 179.00               | 10,319.5      | 476,936.36         | 763,048.25        | 32° 18' 30.034 N | 103° 28' 54.941 W | 41.6          | -1,049.4      | 1,050.0          |
| 11,171.0     | 88.40      | 179.40               | 10,321.0      | 476,841.38         | 763,049.58        | 32° 18' 29.094 N | 103° 28' 54.934 W | 42.9          | -1,144.4      | 1,145.0          |
| 11,264.0     | 89.20      | 179.80               | 10,322.9      | 476,748.40         | 763,050.23        | 32° 18' 28.174 N | 103° 28' 54.935 W | 43.5          | -1,237.4      | 1,238.0          |
| 11,359.0     | 87.30      | 179.90               | 10,325.8      | 476,653.45         | 763,050.48        | 32° 18' 27.234 N | 103° 28' 54.941 W | 43.8          | -1,332.3      | 1,332.9          |
| 11,454.0     | 87.60      | 179.30               | 10,330.1      | 476,558.55         | 763,051.14        | 32° 18' 26.295 N | 103° 28' 54.942 W | 44.4          | -1,427.3      | 1,427.8          |
| 11,549.0     | 88.70      | 179.80               | 10,333.1      | 476,463.60         | 763,051.89        | 32° 18' 25.355 N | 103° 28' 54.942 W | 45.2          | -1,522.2      | 1,522.8          |
| 11,644.0     | 90.20      | 179.70               | 10,334.0      | 476,368.61         | 763,052.30        | 32° 18' 24.415 N | 103° 28' 54.946 W | 45.6          | -1,617.2      | 1,617.8          |
| 11,739.0     | 87.70      | 179.80               | 10,335.8      | 476,273.64         | 763,052.72        | 32° 18' 23.476 N | 103° 28' 54.950 W | 46.0          | -1,712.2      | 1,712.7          |
| 11,833.0     | 88.90      | 179.40               | 10,338.6      | 476,179.68         | 763,053.37        | 32° 18' 22.546 N | 103° 28' 54.951 W | 46.7          | -1,806.1      | 1,806.7          |
| 11,927.0     | 89.10      | 179.50               | 10,340.2      | 476,085.70         | 763,054.27        | 32° 18' 21.616 N | 103° 28' 54.950 W | 47.6          | -1,900.1      | 1,900.7          |
| 12,021.0     | 90.20      | 179.50               | 10,340.8      | 475,991.71         | 763,055.09        | 32° 18' 20.686 N | 103° 28' 54.949 W | 48.4          | -1,994.1      | 1,994.7          |
| 12,116.0     | 88.00      | 179.00               | 10,342.3      | 475,896.73         | 763,056.34        | 32° 18' 19.746 N | 103° 28' 54.943 W | 49.6          | -2,089.1      | 2,089.6          |
| 12,210.0     | 88.90      | 179.20               | 10,344.8      | 475,802.78         | 763,057.81        | 32° 18' 18.816 N | 103° 28' 54.934 W | 51.1          | -2,183.0      | 2,183.6          |
| 12,305.0     | 90.10      | 178.80               | 10,345.7      | 475,707.80         | 763,059.47        | 32° 18' 17.876 N | 103° 28' 54.924 W | 52.8          | -2,278.0      | 2,278.6          |
| 12,400.0     | 91.60      | 178.70               | 10,344.2      | 475,612.84         | 763,061.54        | 32° 18' 16.936 N | 103° 28' 54.909 W | 54.8          | -2,373.0      | 2,373.6          |
| 12,495.0     | 90.30      | 177.60               | 10,342.7      | 475,517.90         | 763,064.61        | 32° 18' 15.997 N | 103° 28' 54.882 W | 57.9          | -2,467.9      | 2,468.6          |
| 12,590.0     | 89.70      | 178.30               | 10,342.7      | 475,422.96         | 763,068.01        | 32° 18' 15.057 N | 103° 28' 54.851 W | 61.3          | -2,562.8      | 2,563.5          |
| 12,685.0     | 87.30      | 178.10               | 10,345.2      | 475,328.05         | 763,070.99        | 32° 18' 14.118 N | 103° 28' 54.825 W | 64.3          | -2,657.8      | 2,658.5          |
| 12,779.0     | 87.90      | 178.30               | 10,349.1      | 475,234.18         | 763,073.94        | 32° 18' 13.188 N | 103° 28' 54.799 W | 67.2          | -2,751.6      | 2,752.4          |
| 12,874.0     | 88.50      | 178.30               | 10,352.1      | 475,139.27         | 763,076.76        | 32° 18' 12.249 N | 103° 28' 54.775 W | 70.1          | -2,846.5      | 2,847.3          |
| 12,968.0     | 88.90      | 178.30               | 10,354.2      | 475,045.33         | 763,079.55        | 32° 18' 11.319 N | 103° 28' 54.751 W | 72.8          | -2,940.5      | 2,941.3          |



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Site: Gettysburg State Com  
Well: No.1H  
Wellbore: ST2  
Design: ST2

Local Co-ordinate Reference: Well No.1H  
TVD Reference: KB @ 3461.0usft (Ensign #772)  
MD Reference: KB @ 3461.0usft (Ensign #772)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

| Survey       |            |                      |               |                    |                   |                  |                   |               |               |                  |
|--------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
| 13,062.0     | 89.30      | 177.70               | 10,355.7      | 474,951.40         | 763,082.83        | 32° 18' 10.390 N | 103° 28' 54.722 W | 76.1          | -3,034.4      | 3,035.3          |
| 13,155.0     | 87.10      | 178.80               | 10,358.6      | 474,858.50         | 763,085.66        | 32° 18' 9.470 N  | 103° 28' 54.697 W | 79.0          | -3,127.3      | 3,128.2          |
| 13,250.0     | 87.50      | 179.30               | 10,363.1      | 474,763.62         | 763,087.24        | 32° 18' 8.531 N  | 103° 28' 54.688 W | 80.5          | -3,222.2      | 3,223.1          |
| 13,345.0     | 88.80      | 180.20               | 10,366.2      | 474,668.67         | 763,087.65        | 32° 18' 7.592 N  | 103° 28' 54.692 W | 81.0          | -3,317.1      | 3,318.1          |
| 13,439.0     | 89.40      | 180.40               | 10,367.6      | 474,574.69         | 763,087.16        | 32° 18' 6.662 N  | 103° 28' 54.706 W | 80.5          | -3,411.1      | 3,412.0          |
| 13,534.0     | 89.10      | 180.00               | 10,368.9      | 474,479.69         | 763,086.83        | 32° 18' 5.722 N  | 103° 28' 54.719 W | 80.1          | -3,506.1      | 3,507.0          |
| 13,628.0     | 88.90      | 179.30               | 10,370.5      | 474,385.71         | 763,087.40        | 32° 18' 4.792 N  | 103° 28' 54.721 W | 80.7          | -3,600.1      | 3,601.0          |
| 13,723.0     | 89.20      | 179.00               | 10,372.1      | 474,290.74         | 763,088.81        | 32° 18' 3.852 N  | 103° 28' 54.713 W | 82.1          | -3,695.1      | 3,696.0          |
| 13,818.0     | 89.70      | 178.60               | 10,373.0      | 474,195.76         | 763,090.80        | 32° 18' 2.912 N  | 103° 28' 54.699 W | 84.1          | -3,790.0      | 3,791.0          |
| 13,912.0     | 89.40      | 178.30               | 10,373.7      | 474,101.80         | 763,093.34        | 32° 18' 1.982 N  | 103° 28' 54.678 W | 86.6          | -3,884.0      | 3,884.9          |
| 14,007.0     | 89.70      | 178.30               | 10,374.5      | 474,006.84         | 763,096.16        | 32° 18' 1.042 N  | 103° 28' 54.654 W | 89.5          | -3,979.0      | 3,979.9          |
| 14,102.0     | 88.30      | 180.20               | 10,376.1      | 473,911.87         | 763,097.41        | 32° 18' 0.102 N  | 103° 28' 54.648 W | 90.7          | -4,073.9      | 4,074.9          |
| 14,197.0     | 88.60      | 179.70               | 10,378.7      | 473,816.91         | 763,097.49        | 32° 17' 59.162 N | 103° 28' 54.656 W | 90.8          | -4,168.9      | 4,169.9          |
| 14,291.0     | 89.70      | 179.20               | 10,380.1      | 473,722.92         | 763,098.39        | 32° 17' 58.232 N | 103° 28' 54.654 W | 91.7          | -4,262.9      | 4,263.8          |
| 14,385.0     | 90.40      | 179.30               | 10,380.0      | 473,628.93         | 763,099.62        | 32° 17' 57.302 N | 103° 28' 54.649 W | 92.9          | -4,356.9      | 4,357.8          |
| 14,479.0     | 88.80      | 180.00               | 10,380.7      | 473,534.94         | 763,100.20        | 32° 17' 56.372 N | 103° 28' 54.651 W | 93.5          | -4,450.9      | 4,451.8          |
| 14,573.0     | 89.40      | 179.70               | 10,382.2      | 473,440.95         | 763,100.44        | 32° 17' 55.442 N | 103° 28' 54.656 W | 93.7          | -4,544.8      | 4,545.8          |
| 14,667.0     | 90.20      | 179.50               | 10,382.5      | 473,346.96         | 763,101.10        | 32° 17' 54.512 N | 103° 28' 54.657 W | 94.4          | -4,638.8      | 4,639.8          |
| 14,761.0     | 87.80      | 179.20               | 10,384.1      | 473,252.98         | 763,102.16        | 32° 17' 53.582 N | 103° 28' 54.654 W | 95.5          | -4,732.8      | 4,733.8          |
| 14,855.0     | 87.80      | 179.50               | 10,387.7      | 473,159.06         | 763,103.23        | 32° 17' 52.652 N | 103° 28' 54.650 W | 96.5          | -4,826.7      | 4,827.7          |
| 14,949.0     | 88.50      | 179.70               | 10,390.8      | 473,065.11         | 763,103.89        | 32° 17' 51.723 N | 103° 28' 54.651 W | 97.2          | -4,920.7      | 4,921.6          |
| 15,043.0     | 89.10      | 179.30               | 10,392.7      | 472,971.14         | 763,104.71        | 32° 17' 50.793 N | 103° 28' 54.650 W | 98.0          | -5,014.7      | 5,015.6          |
| 15,137.0     | 89.70      | 179.00               | 10,393.7      | 472,877.15         | 763,106.10        | 32° 17' 49.863 N | 103° 28' 54.643 W | 99.4          | -5,108.6      | 5,109.6          |
| 15,231.0     | 90.70      | 179.20               | 10,393.4      | 472,783.17         | 763,107.58        | 32° 17' 48.933 N | 103° 28' 54.634 W | 100.9         | -5,202.6      | 5,203.6          |
| 15,325.0     | 92.40      | 178.80               | 10,390.8      | 472,689.22         | 763,109.22        | 32° 17' 48.003 N | 103° 28' 54.624 W | 102.5         | -5,296.6      | 5,297.6          |
| 15,419.0     | 90.80      | 178.30               | 10,388.2      | 472,595.29         | 763,111.59        | 32° 17' 47.073 N | 103° 28' 54.605 W | 104.9         | -5,390.5      | 5,391.5          |
| 15,513.0     | 88.20      | 178.40               | 10,389.0      | 472,501.34         | 763,114.30        | 32° 17' 46.143 N | 103° 28' 54.582 W | 107.6         | -5,484.5      | 5,485.5          |



# Childress Directional Drilling Final Survey Report



Company: Concho  
Project: Lea, NM  
Site: Gettysburg State Com  
Well: No.1H  
Wellbore: ST2  
Design: ST2

Local Co-ordinate Reference: Well No.1H  
TVD Reference: KB @ 3461.0usft (Ensign #772)  
MD Reference: KB @ 3461.0usft (Ensign #772)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

## Survey

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         | E/W<br>(usft) | N/S<br>(usft) | V. Sec<br>(usft) |
|--------------|------------|----------------------|---------------|--------------------|-------------------|------------------|-------------------|---------------|---------------|------------------|
| 15,607.0     | 88.90      | 178.30               | 10,391.4      | 472,407.41         | 763,117.01        | 32° 17' 45.214 N | 103° 28' 54.559 W | 110.3         | -5,578.4      | 5,579.5          |
| 15,701.0     | 88.50      | 180.90               | 10,393.6      | 472,313.44         | 763,117.66        | 32° 17' 44.284 N | 103° 28' 54.560 W | 111.0         | -5,672.4      | 5,673.4          |
| 15,798.0     | 89.20      | 179.50               | 10,395.5      | 472,216.47         | 763,117.32        | 32° 17' 43.324 N | 103° 28' 54.573 W | 110.6         | -5,769.3      | 5,770.4          |
| 15,829.0     | 88.90      | 178.30               | 10,396.0      | 472,185.48         | 763,117.92        | 32° 17' 43.018 N | 103° 28' 54.569 W | 111.2         | -5,800.3      | 5,801.4          |
| 15,892.0     | 89.30      | 177.90               | 10,397.0      | 472,122.52         | 763,120.01        | 32° 17' 42.394 N | 103° 28' 54.550 W | 113.3         | -5,863.3      | 5,864.4          |
| 15,986.0     | 89.50      | 177.60               | 10,398.0      | 472,028.60         | 763,123.70        | 32° 17' 41.465 N | 103° 28' 54.516 W | 117.0         | -5,957.2      | 5,958.4          |
| 16,080.0     | 89.80      | 177.40               | 10,398.6      | 471,934.69         | 763,127.80        | 32° 17' 40.535 N | 103° 28' 54.477 W | 121.1         | -6,051.1      | 6,052.3          |
| 16,174.0     | 90.00      | 177.90               | 10,398.7      | 471,840.77         | 763,131.65        | 32° 17' 39.606 N | 103° 28' 54.441 W | 125.0         | -6,145.0      | 6,146.3          |
| 16,269.0     | 91.30      | 179.50               | 10,397.7      | 471,745.80         | 763,133.81        | 32° 17' 38.666 N | 103° 28' 54.425 W | 127.1         | -6,240.0      | 6,241.3          |
| 16,363.0     | 87.80      | 180.70               | 10,398.4      | 471,651.82         | 763,133.64        | 32° 17' 37.736 N | 103° 28' 54.435 W | 126.9         | -6,334.0      | 6,335.2          |
| 16,457.0     | 88.10      | 180.20               | 10,401.8      | 471,557.89         | 763,132.91        | 32° 17' 36.806 N | 103° 28' 54.452 W | 126.2         | -6,427.9      | 6,429.2          |
| 16,551.0     | 88.70      | 180.60               | 10,404.4      | 471,463.93         | 763,132.25        | 32° 17' 35.877 N | 103° 28' 54.469 W | 125.5         | -6,521.9      | 6,523.1          |
| 16,646.0     | 89.20      | 180.00               | 10,406.1      | 471,368.94         | 763,131.75        | 32° 17' 34.937 N | 103° 28' 54.483 W | 125.1         | -6,616.9      | 6,618.0          |
| 16,740.0     | 89.70      | 179.70               | 10,407.0      | 471,274.95         | 763,132.00        | 32° 17' 34.007 N | 103° 28' 54.489 W | 125.3         | -6,710.9      | 6,712.0          |
| 16,834.0     | 89.80      | 180.00               | 10,407.4      | 471,180.95         | 763,132.24        | 32° 17' 33.076 N | 103° 28' 54.495 W | 125.5         | -6,804.8      | 6,806.0          |
| 16,928.0     | 88.80      | 180.40               | 10,408.6      | 471,086.96         | 763,131.92        | 32° 17' 32.146 N | 103° 28' 54.507 W | 125.2         | -6,898.8      | 6,900.0          |
| 17,022.0     | 88.50      | 179.90               | 10,410.8      | 470,992.99         | 763,131.67        | 32° 17' 31.217 N | 103° 28' 54.519 W | 125.0         | -6,992.8      | 6,993.9          |
| 17,116.0     | 88.60      | 179.30               | 10,413.2      | 470,899.02         | 763,132.33        | 32° 17' 30.287 N | 103° 28' 54.520 W | 125.6         | -7,086.8      | 7,087.9          |
| 17,210.0     | 88.90      | 179.20               | 10,415.2      | 470,805.05         | 763,133.56        | 32° 17' 29.357 N | 103° 28' 54.514 W | 126.9         | -7,180.8      | 7,181.9          |
| 17,305.0     | 88.60      | 178.80               | 10,417.3      | 470,710.09         | 763,135.21        | 32° 17' 28.417 N | 103° 28' 54.504 W | 128.5         | -7,275.7      | 7,276.8          |
| 17,374.0     | 88.30      | 178.60               | 10,419.2      | 470,641.13         | 763,136.78        | 32° 17' 27.734 N | 103° 28' 54.492 W | 130.1         | -7,344.7      | 7,345.8          |
| 17,416.0     | 88.30      | 178.60               | 10,420.4      | 470,599.16         | 763,137.80        | 32° 17' 27.319 N | 103° 28' 54.484 W | 131.1         | -7,386.6      | 7,387.8          |

TD Projection @ 17416.0' MD, 10420.4' TVD - Getty St Com 1H PBHL



# Childress Directional Drilling

## Final Survey Report



**Company:** Concho  
**Project:** Lea, NM  
**Site:** Gettysburg State Com  
**Well:** No.1H  
**Wellbore:** ST2  
**Design:** ST2

**Local Co-ordinate Reference:** Well No.1H  
**TVD Reference:** KB @ 3461.0usft (Ensign #772)  
**MD Reference:** KB @ 3461.0usft (Ensign #772)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

### Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                   |
|-----------------------------|-----------------------------|-------------------|-----------------|-------------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                           |
| 17,416.0                    | 10,420.4                    | -7,386.6          | 131.1           | TD Projection @ 17416.0' MD, 10420.4' TVD |