

Reservoir Development

PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
Phone: (405) 789-1515
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PATHFINDER
A Schlumberger Company

August 25, 2015

Chevron U.S.A Inc.
15 Smith Road
Midland, Texas 79705

NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 04 2016

RECEIVED

Re:

Sec 25 26S 28E Eddy NM
N 32.00701 W -103.95326

CLIENT: Chevron U.S.A. Inc.
WELL: Rustler Bluff 25 26 28 Federal 1H
FIELD: Delaware River; Bone Spring
RIG: Nabors M51
COUNTY: Eddy
API NO: 30-015-43055
JOB NO: 15MLD2009

Enclosed, please find the original copy of the survey performed on the referenced well by PathFinder, a division of Schlumberger Technology Corporation.
Other information required by your office is as follows.

| <u>Name & Title of Surveyor</u> | <u>Drainhole Number</u> | <u>Surveyed Depths</u> | <u>Dates Performed</u> | <u>Type of Survey</u> |
|-------------------------------------|---|-----------------------------|--------------------------------------|-----------------------|
| Timothy Cramer MWD | Rustler Bluff 25 26 28 Federal 1H Original Hole | 398.00 Ft to 12790.00 Ft | August 4, 2015 to August 15, 2015 | HDS-1L |

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Qun Xu
Field Service Manager

Reservoir Development


PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
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Well Reference:

Sec 25 26S 28E Eddy NM
N 32.00701 W -103.95326


I, Timothy Cramer certify that; I am employed by PathFinder, a division of Schlumberger Technology Corporation; that I did on the day(s) of August 04, 2015 through August 15, 2015, conduct or supervise the taking of the HDS-1L surveys from a depth of 398.00 feet to a depth of 12790.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Chevron U.S.A. Inc. for the Rustler Bluff 25 26 28 Federal 1H Well (Original Hole) API No. 30-015-43055 and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By 
Timothy Cramer
MWD

Subscribed and Sworn to before me this 25th day of August (month) 2015 (yr)

My Commission expires:

September 5, 2016


Notary Public

Midland, TX
(County State)

(signature)



NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 04 2015

RECEIVED

PathFinder – a Schlumberger company

Survey Report

CHEVRON U.S.A INC.
RUSTLER BLUFF 25 26 28 FED 1H
EDDY COUNTY, NM
API#: 30-015-43055 Rigs: Nabors M51
PathFinder Office Supervisor: Qun Xu
PathFinder Field Engineers: T.Cramer

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.0.25.2584 N LON:105.57.48.2524 W
GRID Reference:NAD27 new mexico central Transverse Mercator
Ref GRID Coord: X: 58836.0000 Y: 366394.0000
North Aligned To:TRUE NORTH
Total Magnetic Correction: 7.32°EAST TO TRUE
Vertical Section Plane: 358.71
Survey Vert. Reference: 22.00' Rotary Table To Ground
Altitude:3000.00' Ground To MSL

Survey Calculations by RX4 using Minimum Curvature

| Measured Depth (ft) | Incl (deg) | Drift Dir. (deg) | TVD (ft) | Course Length (ft) | Vertical Section (ft) | Rectangular Offsets (ft) | TOTAL (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|---|---------------|------------------------|-------------|--------------------------|-----------------------------|-----------------------------|---------------|-----------------------------------|-------------------|
| ORIGIN OF WELL AT SURFACE. | | | | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00@ 0.00 | 0.00 |
| THE FOLLOWING ARE PATHFINDER MWD SURVEYS. | | | | | | | | | |
| 398.00 | 0.26 | 42.63 | 398.00 | 398.00 | 0.65 | 0.66 N | 0.61 E | 0.90@ 42.63 | 0.06 |
| 522.00 | 0.18 | 69.65 | 522.00 | 124.00 | 0.92 | 0.94 N | 0.98 E | 1.36@ 46.36 | 0.10 |
| 710.00 | 0.35 | 319.51 | 710.00 | 188.00 | 1.46 | 1.48 N | 0.89 E | 1.73@ 31.01 | 0.24 |
| 896.00 | 0.62 | 263.09 | 895.99 | 186.00 | 1.80 | 1.79 N | 0.48 W | 1.85@ 345.01 | 0.28 |
| 1082.00 | 0.70 | 265.58 | 1081.98 | 186.00 | 1.64 | 1.58 N | 2.61 W | 3.05@ 301.19 | 0.05 |
| 1273.00 | 0.88 | 256.40 | 1272.96 | 191.00 | 1.26 | 1.15 N | 5.20 W | 5.32@ 282.43 | 0.12 |
| 1463.00 | 1.14 | 236.19 | 1462.93 | 190.00 | -0.06 | 0.25 S | 8.19 W | 8.19@ 268.26 | 0.23 |
| 1654.00 | 1.58 | 244.03 | 1653.88 | 191.00 | -2.19 | 2.46 S | 12.13 W | 12.38@ 258.54 | 0.25 |
| 1845.00 | 0.44 | 337.81 | 1844.85 | 191.00 | -2.60 | 2.93 S | 14.78 W | 15.07@ 258.77 | 0.87 |
| 2036.00 | 1.23 | 47.98 | 2035.83 | 191.00 | -0.58 | 0.88 S | 13.53 W | 13.56@ 266.27 | 0.61 |
| 2226.00 | 0.26 | 37.53 | 2225.81 | 190.00 | 1.09 | 0.83 N | 11.76 W | 11.78@ 274.02 | 0.51 |
| 2417.00 | 2.29 | 104.70 | 2416.76 | 191.00 | 0.38 | 0.20 N | 7.80 W | 7.80@ 271.47 | 1.15 |
| 2581.00 | 1.14 | 169.65 | 2580.70 | 164.00 | -2.14 | 2.24 S | 4.34 W | 4.88@ 242.73 | 1.27 |
| 2705.00 | 1.58 | 174.22 | 2704.66 | 124.00 | -5.06 | 5.15 S | 3.94 W | 6.49@ 217.44 | 0.36 |
| 2895.00 | 1.41 | 176.11 | 2894.60 | 190.00 | -10.01 | 10.09 S | 3.52 W | 10.69@ 199.24 | 0.09 |
| 3086.00 | 1.41 | 171.87 | 3085.54 | 191.00 | -14.69 | 14.76 S | 3.03 W | 15.07@ 191.60 | 0.05 |
| 3276.00 | 1.58 | 172.09 | 3275.47 | 190.00 | -19.61 | 19.67 S | 2.34 W | 19.81@ 186.78 | 0.09 |
| 3466.00 | 1.67 | 178.13 | 3465.40 | 190.00 | -24.98 | 25.03 S | 1.89 W | 25.10@ 184.31 | 0.10 |
| 3657.00 | 0.62 | 356.43 | 3656.38 | 191.00 | -26.73 | 26.78 S | 1.86 W | 26.84@ 183.97 | 1.20 |
| 3847.00 | 0.88 | 356.29 | 3846.36 | 190.00 | -24.25 | 24.30 S | 2.02 W | 24.38@ 184.75 | 0.14 |
| 4038.00 | 0.88 | 353.02 | 4037.34 | 191.00 | -21.32 | 21.38 S | 2.29 W | 21.50@ 186.12 | 0.03 |
| 4229.00 | 0.88 | 334.51 | 4228.32 | 191.00 | -18.52 | 18.60 S | 3.10 W | 18.86@ 189.47 | 0.15 |
| 4420.00 | 0.79 | 311.84 | 4419.30 | 191.00 | -16.29 | 16.40 S | 4.71 W | 17.06@ 196.04 | 0.18 |

PathFinder – a Schlumberger company

Survey Report

CHEVRON U.S.A INC.
RUSTLER BLUFF 25 26 28 FED 1H
EDDY COUNTY, NM
API#: 30-015-43055 Rig: Nabors M51

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| Measured Depth (ft) | Incl (deg) | Drift Dir. (deg) | TVD (ft) | Course Length (ft) | Vertical Section (ft) | TOTAL Rectangular Offsets (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|--------------------------------------|-----------------------------------|-------------------|
| 4610.00 | 0.79 | 308.13 | 4609.28 | 190.00 | -14.56 | 14.71 S 6.72 W | 16.18@ 204.55 | 0.03 |
| 4801.00 | 0.88 | 302.34 | 4800.26 | 191.00 | -12.91 | 13.12 S 9.00 W | 15.90@ 214.44 | 0.06 |
| 4991.00 | 0.79 | 280.68 | 4990.24 | 190.00 | -11.83 | 12.09 S 11.51 W | 16.70@ 223.60 | 0.17 |
| 5182.00 | 0.70 | 271.36 | 5181.22 | 191.00 | -11.50 | 11.82 S 13.98 W | 18.30@ 229.77 | 0.08 |
| 5373.00 | 0.62 | 268.62 | 5372.21 | 191.00 | -11.45 | 11.82 S 16.17 W | 20.03@ 233.84 | 0.05 |
| 5564.00 | 0.70 | 273.75 | 5563.20 | 191.00 | -11.35 | 11.77 S 18.37 W | 21.82@ 237.36 | 0.05 |
| 5754.00 | 0.53 | 276.50 | 5753.19 | 190.00 | -11.13 | 11.59 S 20.40 W | 23.47@ 240.40 | 0.09 |
| 5944.00 | 0.44 | 261.76 | 5943.18 | 190.00 | -11.10 | 11.60 S 22.00 W | 24.87@ 242.20 | 0.08 |
| 6135.00 | 0.53 | 225.28 | 6134.17 | 191.00 | -11.79 | 12.32 S 23.35 W | 26.40@ 242.18 | 0.17 |
| 6325.00 | 0.62 | 271.47 | 6324.16 | 190.00 | -12.35 | 12.92 S 25.00 W | 28.14@ 242.68 | 0.24 |
| 6516.00 | 1.58 | 340.60 | 6515.13 | 191.00 | -9.80 | 10.41 S 26.91 W | 28.85@ 248.86 | 0.77 |
| 6706.00 | 1.58 | 310.42 | 6705.06 | 190.00 | -5.56 | 6.24 S 29.78 W | 30.42@ 258.17 | 0.43 |
| 6897.00 | 1.14 | 208.31 | 6896.03 | 191.00 | -5.46 | 6.20 S 32.68 W | 33.27@ 259.26 | 1.12 |
| 7088.00 | 1.23 | 280.72 | 7087.00 | 191.00 | -6.69 | 7.49 S 35.60 W | 36.38@ 258.11 | 0.73 |
| 7278.00 | 0.62 | 233.10 | 7276.98 | 190.00 | -6.86 | 7.73 S 38.42 W | 39.19@ 258.62 | 0.49 |
| 7469.00 | 0.79 | 215.31 | 7467.96 | 191.00 | -8.52 | 9.43 S 40.01 W | 41.11@ 256.74 | 0.14 |
| 7659.00 | 0.44 | 216.21 | 7657.95 | 190.00 | -10.15 | 11.08 S 41.20 W | 42.66@ 254.94 | 0.19 |
| 7748.00 | 0.62 | 315.32 | 7746.95 | 89.00 | -10.07 | 11.02 S 41.74 W | 43.17@ 255.21 | 0.92 |
| 7843.00 | 11.96 | 340.12 | 7841.23 | 95.00 | -0.34 | 1.36 S 45.46 W | 45.48@ 268.28 | 12.00 |
| 7893.00 | 17.67 | 342.59 | 7889.54 | 50.00 | 11.87 | 10.76 N 49.50 W | 50.65@ 282.26 | 11.49 |
| 7939.00 | 21.54 | 343.35 | 7932.87 | 46.00 | 26.73 | 25.52 N 54.01 W | 59.73@ 295.29 | 8.43 |
| 8034.00 | 32.27 | 352.56 | 8017.50 | 95.00 | 68.90 | 67.51 N 62.31 W | 91.88@ 317.29 | 12.09 |
| 8130.00 | 40.80 | 355.44 | 8094.57 | 96.00 | 125.80 | 124.30 N 68.14 W | 141.75@ 331.27 | 9.06 |
| 8225.00 | 53.11 | 354.51 | 8159.29 | 95.00 | 194.94 | 193.32 N 74.26 W | 207.09@ 338.99 | 12.98 |
| 8321.00 | 64.28 | 0.64 | 8209.13 | 96.00 | 276.77 | 275.09 N 77.47 W | 285.79@ 344.27 | 12.84 |
| 8416.00 | 72.90 | 2.25 | 8243.77 | 95.00 | 365.02 | 363.42 N 75.20 W | 371.12@ 348.31 | 9.21 |
| 8497.00 | 83.89 | 357.65 | 8260.05 | 81.00 | 444.20 | 442.62 N 75.33 W | 448.99@ 350.34 | 14.66 |
| 8536.00 | 89.78 | 355.70 | 8262.20 | 39.00 | 483.10 | 481.48 N 77.59 W | 487.69@ 350.85 | 15.91 |

PathFinder – a Schlumberger company

Survey Report

CHEVRON U.S.A INC.
RUSTLER BLUFF 25 26 28 FED 1H
EDDY COUNTY, NM
API#: 30-015-43055 Rig: Nabors M51

Page 03/04

| Measured Depth (ft) | Incl (deg) | Drift Dir. (deg) | TVD (ft) | Course Length (ft) | Vertical Section (ft) | TOTAL Rectangular Offsets (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|---------------------------|---------------|------------------------|-------------|--------------------------|-----------------------------|--------------------------------------|-----------------------------------|-------------------|
| 8599.00 | 90.92 | 356.44 | 8261.82 | 63.00 | 546.03 | 544.33 N 81.91 W | 550.45@ 351.44 | 2.16 |
| 8694.00 | 91.36 | 359.24 | 8259.93 | 95.00 | 640.99 | 639.23 N 85.49 W | 644.92@ 352.38 | 2.98 |
| 8790.00 | 90.75 | 0.31 | 8258.16 | 96.00 | 736.96 | 735.21 N 85.87 W | 740.21@ 353.34 | 1.28 |
| 8885.00 | 91.19 | 0.72 | 8256.55 | 95.00 | 831.90 | 830.19 N 85.01 W | 834.53@ 354.15 | 0.63 |
| 8980.00 | 91.89 | 0.92 | 8254.00 | 95.00 | 926.80 | 925.15 N 83.65 W | 928.92@ 354.83 | 0.77 |
| 9076.00 | 92.59 | 0.94 | 8250.25 | 96.00 | 1022.65 | 1021.06 N 82.10 W | 1024.36@ 355.40 | 0.73 |
| 9171.00 | 91.54 | 1.45 | 8246.82 | 95.00 | 1117.50 | 1115.98 N 80.12 W | 1118.85@ 355.89 | 1.23 |
| 9266.00 | 88.90 | 359.67 | 8246.46 | 95.00 | 1212.44 | 1210.96 N 79.19 W | 1213.55@ 356.26 | 3.35 |
| 9361.00 | 89.43 | 0.32 | 8247.84 | 95.00 | 1307.40 | 1305.95 N 79.20 W | 1308.35@ 356.53 | 0.88 |
| 9456.00 | 89.78 | 0.50 | 8248.50 | 95.00 | 1402.36 | 1400.94 N 78.52 W | 1403.14@ 356.79 | 0.41 |
| 9551.00 | 90.48 | 0.77 | 8248.28 | 95.00 | 1497.30 | 1495.94 N 77.46 W | 1497.94@ 357.04 | 0.79 |
| 9647.00 | 91.19 | 1.12 | 8246.88 | 96.00 | 1593.22 | 1591.91 N 75.88 W | 1593.72@ 357.27 | 0.82 |
| 9742.00 | 89.34 | 359.70 | 8246.45 | 95.00 | 1688.17 | 1686.90 N 75.20 W | 1688.58@ 357.45 | 2.46 |
| 9837.00 | 89.08 | 358.61 | 8247.75 | 95.00 | 1783.16 | 1781.88 N 76.60 W | 1783.53@ 357.54 | 1.18 |
| 9933.00 | 89.69 | 359.21 | 8248.79 | 96.00 | 1879.15 | 1877.86 N 78.43 W | 1879.50@ 357.61 | 0.89 |
| 10028.00 | 90.13 | 359.64 | 8248.93 | 95.00 | 1974.14 | 1972.85 N 79.38 W | 1974.45@ 357.70 | 0.65 |
| 10124.00 | 90.48 | 0.38 | 8248.42 | 96.00 | 2070.11 | 2068.85 N 79.36 W | 2070.37@ 357.80 | 0.85 |
| 10219.00 | 91.01 | 359.75 | 8247.19 | 95.00 | 2165.08 | 2163.84 N 79.26 W | 2165.29@ 357.90 | 0.87 |
| 10314.00 | 89.52 | 359.04 | 8246.75 | 95.00 | 2260.07 | 2258.83 N 80.26 W | 2260.26@ 357.97 | 1.74 |
| 10410.00 | 89.96 | 358.92 | 8247.18 | 96.00 | 2356.06 | 2354.82 N 81.97 W | 2356.24@ 358.01 | 0.48 |
| 10505.00 | 90.22 | 358.40 | 8247.04 | 95.00 | 2451.06 | 2449.79 N 84.19 W | 2451.24@ 358.03 | 0.61 |
| 10600.00 | 90.75 | 358.04 | 8246.23 | 95.00 | 2546.06 | 2544.74 N 87.14 W | 2546.23@ 358.04 | 0.67 |
| 10695.00 | 91.63 | 358.33 | 8244.26 | 95.00 | 2641.03 | 2639.67 N 90.15 W | 2641.21@ 358.04 | 0.97 |
| 10791.00 | 91.36 | 358.75 | 8241.75 | 96.00 | 2737.00 | 2735.61 N 92.59 W | 2737.17@ 358.06 | 0.52 |
| 10886.00 | 91.10 | 359.24 | 8239.71 | 95.00 | 2831.97 | 2830.57 N 94.26 W | 2832.14@ 358.09 | 0.58 |
| 10981.00 | 89.78 | 359.73 | 8238.98 | 95.00 | 2926.96 | 2925.56 N 95.11 W | 2927.11@ 358.14 | 1.48 |
| 11077.00 | 89.52 | 359.23 | 8239.57 | 96.00 | 3022.95 | 3021.55 N 95.99 W | 3023.08@ 358.18 | 0.59 |
| 11172.00 | 89.78 | 358.79 | 8240.15 | 95.00 | 3117.95 | 3116.54 N 97.63 W | 3118.07@ 358.21 | 0.54 |

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Survey Report

CHEVRON U.S.A INC.
RUSTLER BLUFF 25 26 28 FED 1H
EDDY COUNTY, NM
API#: 30-015-43055 Rig: Nabors M51

Page 04/04

| Measured Depth (ft) | Incl (deg) | Drift Dir. (deg) | TVD (ft) | Course Length (ft) | Vertical Section (ft) | Rectangular Offsets (ft) | TOTAL (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|--|---------------|------------------------|-------------|--------------------------|-----------------------------|-----------------------------|---------------|-----------------------------------|-------------------|
| 11267.00 | 90.75 | 359.41 | 8239.71 | 95.00 | 3212.94 | 3211.52 N | 99.12 W | 3213.05@ 358.23 | 1.21 |
| 11362.00 | 91.01 | 359.58 | 8238.25 | 95.00 | 3307.92 | 3306.51 N | 99.96 W | 3308.02@ 358.27 | 0.33 |
| 11457.00 | 89.96 | 0.69 | 8237.45 | 95.00 | 3402.89 | 3401.50 N | 99.73 W | 3402.96@ 358.32 | 1.61 |
| 11552.00 | 89.60 | 1.19 | 8237.81 | 95.00 | 3497.81 | 3496.49 N | 98.17 W | 3497.87@ 358.39 | 0.65 |
| 11648.00 | 90.13 | 1.09 | 8238.04 | 96.00 | 3593.73 | 3592.47 N | 96.26 W | 3593.76@ 358.47 | 0.56 |
| 11743.00 | 90.84 | 1.56 | 8237.24 | 95.00 | 3688.62 | 3687.44 N | 94.07 W | 3688.64@ 358.54 | 0.90 |
| 11838.00 | 89.43 | 1.14 | 8237.01 | 95.00 | 3783.52 | 3782.41 N | 91.83 W | 3783.52@ 358.61 | 1.55 |
| 11934.00 | 89.96 | 1.39 | 8237.52 | 96.00 | 3879.42 | 3878.39 N | 89.71 W | 3879.42@ 358.67 | 0.61 |
| 12029.00 | 90.66 | 1.17 | 8237.01 | 95.00 | 3974.32 | 3973.36 N | 87.59 W | 3974.32@ 358.74 | 0.77 |
| 12124.00 | 90.75 | 1.06 | 8235.84 | 95.00 | 4069.23 | 4068.33 N | 85.74 W | 4069.24@ 358.79 | 0.15 |
| 12219.00 | 90.57 | 0.90 | 8234.75 | 95.00 | 4164.15 | 4163.31 N | 84.11 W | 4164.16@ 358.84 | 0.25 |
| 12314.00 | 88.64 | 359.68 | 8235.40 | 95.00 | 4259.11 | 4258.30 N | 83.63 W | 4259.12@ 358.87 | 2.40 |
| 12409.00 | 89.25 | 359.64 | 8237.15 | 95.00 | 4354.08 | 4353.29 N | 84.20 W | 4354.10@ 358.89 | 0.64 |
| 12505.00 | 89.52 | 359.46 | 8238.18 | 96.00 | 4450.06 | 4449.28 N | 84.95 W | 4450.09@ 358.91 | 0.34 |
| 12600.00 | 90.22 | 359.28 | 8238.40 | 95.00 | 4545.05 | 4544.27 N | 86.00 W | 4545.08@ 358.92 | 0.76 |
| 12695.00 | 91.10 | 359.69 | 8237.30 | 95.00 | 4640.04 | 4639.26 N | 86.85 W | 4640.07@ 358.93 | 1.02 |
| 12790.00 | 92.07 | 359.71 | 8234.67 | 95.00 | 4734.99 | 4734.22 N | 87.35 W | 4735.03@ 358.94 | 1.02 |
| STRAIGHT LINE PROJECTION TO BIT AT 12850'MD. | | | | | | | | | |
| 12850.00 | 92.07 | 359.71 | 8232.51 | 60.00 | 4794.94 | 4794.18 N | 87.65 W | 4794.98@ 358.95 | 0.00 |

281 FAL
572 FWL