

1 General

1.1 Customer Information

| | |
|----------------|--------------|
| Company | PICEANCE VLY |
| Representative | |
| Address | |

1.2 Well/Wellbore Information

| | | | |
|--------------------------|--------------------------------------|----------------------|-------------|
| Well | PA 522-2 | Wellbore No. | 00 |
| Wellbore Legal Name | PA 522-2 | Common Wellbore Name | PA 522-2 |
| Project | PA 02-07S-095W | Site | GV 86-2 Pad |
| Vertical Section Azimuth | 46.40 (°) | North reference | |
| Origin N/S | | Origin E/W | |
| Spud date | 2/16/2014 | UWI | PA 522-2 |
| Active datum | KB @5,847.0ft (above Mean Sea Level) | | |

2 Survey Name

2.1 Survey Name: Survey #1

| | | | |
|--------------|-----------|----------|--|
| Survey Name | Survey #1 | Company | |
| Date Started | 2/16/2014 | Ended | |
| Tool Name | MWD | Engineer | |

2.1.1 Tie On Point

| MD (ft) | Inc. (°) | Azi. (°) | TVD (ft) | N/S (ft) | E/W (ft) |
|---------|----------|----------|----------|----------|----------|
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

2.1.2 Survey Stations

| Date | Type | MD (ft) | Inc. (°) | Azi. (°) | TVD (ft) | N/S (ft) | E/W (ft) | V. sec. (ft) | DLS (°/100usft) | Build Rate (°/100usft) | Turn (°/100usft) | Tface (°) |
|-----------|--------|---------|----------|----------|----------|----------|----------|--------------|-----------------|------------------------|------------------|-----------|
| 2/16/2014 | Tie On | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2/16/2014 | NORMAL | 100.0 | 0.53 | 45.79 | 100.00 | 0.32 | 0.33 | 0.46 | 0.53 | 0.53 | 0.00 | 45.79 |
| | NORMAL | 161.0 | 1.41 | 41.13 | 160.99 | 1.08 | 1.03 | 1.49 | 1.45 | 1.44 | -7.64 | 352.54 |
| | NORMAL | 251.0 | 3.70 | 51.15 | 250.89 | 3.74 | 4.02 | 5.49 | 2.58 | 2.54 | 11.13 | 16.07 |
| | NORMAL | 342.0 | 6.33 | 51.68 | 341.54 | 8.69 | 10.24 | 13.41 | 2.89 | 2.89 | 0.58 | 1.27 |
| | NORMAL | 432.0 | 8.89 | 49.31 | 430.74 | 16.31 | 19.41 | 25.30 | 2.87 | 2.84 | -2.63 | 351.83 |
| | NORMAL | 510.0 | 11.17 | 45.76 | 507.54 | 25.51 | 29.39 | 38.88 | 3.03 | 2.92 | -4.55 | 343.07 |
| 2/17/2014 | NORMAL | 602.0 | 12.11 | 42.25 | 597.65 | 38.87 | 42.27 | 57.41 | 1.28 | 1.02 | -3.82 | 321.28 |
| | NORMAL | 692.0 | 12.14 | 42.31 | 685.64 | 52.85 | 54.98 | 76.27 | 0.04 | 0.03 | 0.07 | 22.82 |
| | NORMAL | 784.0 | 12.34 | 42.95 | 775.55 | 67.20 | 68.19 | 95.73 | 0.26 | 0.22 | 0.70 | 34.47 |
| | NORMAL | 836.0 | 12.32 | 46.15 | 826.35 | 75.11 | 75.98 | 106.82 | 1.31 | -0.04 | 6.15 | 93.24 |
| 2/18/2014 | NORMAL | 961.0 | 12.21 | 47.72 | 948.50 | 93.25 | 95.38 | 133.37 | 0.28 | -0.09 | 1.26 | 109.02 |
| | NORMAL | 1,056.0 | 12.05 | 47.52 | 1,041.38 | 106.70 | 110.12 | 153.33 | 0.17 | -0.17 | -0.21 | 194.62 |
| | NORMAL | 1,151.0 | 11.70 | 47.17 | 1,134.35 | 119.95 | 124.50 | 172.88 | 0.38 | -0.37 | -0.37 | 191.46 |
| | NORMAL | 1,246.0 | 12.60 | 49.45 | 1,227.22 | 133.23 | 139.44 | 192.86 | 1.07 | 0.95 | 2.40 | 29.18 |
| | NORMAL | 1,341.0 | 12.43 | 48.82 | 1,319.96 | 146.70 | 155.01 | 213.42 | 0.23 | -0.18 | -0.66 | 218.46 |
| | NORMAL | 1,435.0 | 12.05 | 48.93 | 1,411.82 | 159.81 | 170.02 | 233.33 | 0.41 | -0.40 | 0.12 | 176.54 |
| | NORMAL | 1,530.0 | 11.62 | 48.05 | 1,504.81 | 172.72 | 184.61 | 252.80 | 0.49 | -0.45 | -0.93 | 202.34 |
| | NORMAL | 1,625.0 | 11.52 | 47.17 | 1,597.88 | 185.56 | 198.68 | 271.85 | 0.21 | -0.11 | -0.93 | 240.03 |
| | NORMAL | 1,720.0 | 10.88 | 47.86 | 1,691.07 | 198.03 | 212.29 | 290.30 | 0.69 | -0.67 | 0.73 | 168.51 |
| | NORMAL | 1,815.0 | 11.97 | 43.32 | 1,784.18 | 211.21 | 225.70 | 309.10 | 1.49 | 1.15 | -4.78 | 318.24 |

2.1.2 Survey Stations (Continued)

| Date | Type | MD (ft) | Inc. (") | Azi. (") | TVD (ft) | N/S (ft) | E/W (ft) | V. sec. (ft) | DLS (%/100usft) | Build Rate (%/100usft) | Turn (%/100usft) | Tface (") |
|-----------|--------|------------|-------------|-------------|-------------|-------------|-------------|-----------------|--------------------|---------------------------|---------------------|--------------|
| 2/18/2014 | NORMAL | 1,909.0 | 11.61 | 42.42 | 1,876.20 | 225.29 | 238.77 | 328.27 | 0.43 | -0.38 | -0.96 | 206.62 |
| | NORMAL | 2,004.0 | 11.70 | 42.07 | 1,969.24 | 239.49 | 251.67 | 347.41 | 0.12 | 0.09 | -0.37 | 321.67 |
| | NORMAL | 2,099.0 | 12.68 | 45.07 | 2,062.10 | 254.01 | 265.50 | 367.44 | 1.23 | 1.03 | 3.16 | 34.35 |
| | NORMAL | 2,194.0 | 12.45 | 44.60 | 2,154.83 | 268.66 | 280.08 | 388.10 | 0.26 | -0.24 | -0.49 | 203.74 |
| | NORMAL | 2,289.0 | 12.66 | 44.29 | 2,247.55 | 283.41 | 294.54 | 408.74 | 0.23 | 0.22 | -0.33 | 342.06 |
| | NORMAL | 2,384.0 | 12.22 | 43.92 | 2,340.32 | 298.10 | 308.78 | 429.18 | 0.47 | -0.46 | -0.39 | 190.09 |
| | NORMAL | 2,479.0 | 12.40 | 45.90 | 2,433.14 | 312.44 | 323.08 | 449.43 | 0.48 | 0.19 | 2.08 | 67.88 |
| | NORMAL | 2,574.0 | 12.31 | 45.68 | 2,525.94 | 326.61 | 337.65 | 469.75 | 0.11 | -0.09 | -0.23 | 207.50 |
| | NORMAL | 2,668.0 | 12.15 | 48.83 | 2,617.81 | 340.13 | 352.26 | 489.66 | 0.73 | -0.17 | 3.35 | 105.02 |
| | NORMAL | 2,763.0 | 11.53 | 49.49 | 2,710.79 | 352.88 | 367.01 | 509.13 | 0.67 | -0.65 | 0.69 | 168.00 |
| | NORMAL | 2,858.0 | 12.17 | 48.83 | 2,803.76 | 365.64 | 381.77 | 528.61 | 0.69 | 0.67 | -0.69 | 347.72 |
| | NORMAL | 2,953.0 | 12.57 | 46.64 | 2,896.56 | 379.32 | 396.82 | 548.95 | 0.65 | 0.42 | -2.31 | 309.38 |
| | NORMAL | 3,048.0 | 12.57 | 44.47 | 2,989.28 | 393.80 | 411.58 | 569.62 | 0.50 | 0.00 | -2.28 | 268.94 |
| | NORMAL | 3,143.0 | 12.05 | 44.62 | 3,082.10 | 408.23 | 425.78 | 589.87 | 0.55 | -0.55 | 0.16 | 176.55 |
| | NORMAL | 3,238.0 | 12.22 | 46.64 | 3,174.97 | 422.20 | 440.06 | 609.83 | 0.48 | 0.18 | 2.13 | 69.17 |
| 2/19/2014 | NORMAL | 3,333.0 | 11.70 | 46.55 | 3,267.91 | 435.72 | 454.36 | 629.52 | 0.55 | -0.55 | -0.09 | 182.01 |
| | NORMAL | 3,428.0 | 11.34 | 47.61 | 3,361.00 | 448.64 | 468.25 | 648.49 | 0.44 | -0.38 | 1.12 | 150.06 |
| | NORMAL | 3,523.0 | 12.40 | 47.26 | 3,453.97 | 461.86 | 482.64 | 668.03 | 1.12 | 1.12 | -0.37 | 355.94 |
| | NORMAL | 3,618.0 | 12.31 | 46.82 | 3,546.77 | 475.72 | 497.52 | 688.35 | 0.14 | -0.09 | -0.46 | 226.08 |
| | NORMAL | 3,712.0 | 12.05 | 46.29 | 3,638.65 | 489.35 | 511.92 | 708.19 | 0.30 | -0.28 | -0.56 | 203.01 |
| | NORMAL | 3,807.0 | 12.00 | 46.11 | 3,731.57 | 503.05 | 526.20 | 727.98 | 0.07 | -0.05 | -0.19 | 216.78 |
| | NORMAL | 3,903.0 | 11.87 | 44.71 | 3,825.49 | 516.99 | 540.34 | 747.83 | 0.33 | -0.14 | -1.46 | 245.14 |
| | NORMAL | 3,998.0 | 12.66 | 47.21 | 3,918.32 | 531.00 | 554.86 | 768.00 | 1.00 | 0.83 | 2.63 | 35.14 |
| | NORMAL | 4,093.0 | 12.05 | 46.99 | 4,011.12 | 544.84 | 569.75 | 788.33 | 0.64 | -0.64 | -0.23 | 184.31 |
| | NORMAL | 4,188.0 | 11.17 | 47.08 | 4,104.18 | 557.87 | 583.74 | 807.44 | 0.93 | -0.93 | 0.09 | 178.86 |
| | NORMAL | 4,283.0 | 12.35 | 46.79 | 4,197.18 | 571.09 | 597.88 | 826.81 | 1.24 | 1.24 | -0.31 | 356.99 |
| | NORMAL | 4,378.0 | 12.01 | 46.75 | 4,290.04 | 584.82 | 612.48 | 846.85 | 0.36 | -0.36 | -0.04 | 181.40 |
| | NORMAL | 4,472.0 | 11.52 | 45.06 | 4,382.07 | 598.15 | 626.25 | 866.01 | 0.64 | -0.52 | -1.80 | 214.29 |
| | NORMAL | 4,567.0 | 11.08 | 45.69 | 4,475.23 | 611.23 | 639.50 | 884.62 | 0.48 | -0.46 | 0.66 | 164.64 |
| | NORMAL | 4,662.0 | 10.21 | 45.92 | 4,568.59 | 623.46 | 652.08 | 902.17 | 0.92 | -0.92 | 0.24 | 177.32 |
| | NORMAL | 4,757.0 | 9.32 | 47.52 | 4,662.21 | 634.52 | 663.80 | 918.28 | 0.98 | -0.94 | 1.68 | 163.83 |
| | NORMAL | 4,852.0 | 8.53 | 45.94 | 4,756.06 | 644.61 | 674.54 | 933.02 | 0.87 | -0.83 | -1.66 | 196.46 |
| | NORMAL | 4,947.0 | 7.56 | 47.87 | 4,850.13 | 653.70 | 684.24 | 946.31 | 1.06 | -1.02 | 2.03 | 165.39 |
| | NORMAL | 5,041.0 | 7.32 | 47.21 | 4,943.34 | 661.92 | 693.22 | 958.48 | 0.27 | -0.26 | -0.70 | 199.27 |
| 2/20/2014 | NORMAL | 5,136.0 | 5.98 | 47.96 | 5,037.70 | 669.35 | 701.33 | 969.48 | 1.41 | -1.41 | 0.79 | 176.66 |
| | NORMAL | 5,231.0 | 4.75 | 50.16 | 5,132.28 | 675.18 | 708.03 | 978.35 | 1.31 | -1.29 | 2.32 | 171.60 |
| | NORMAL | 5,326.0 | 4.22 | 51.65 | 5,226.99 | 679.87 | 713.79 | 985.76 | 0.57 | -0.56 | 1.57 | 168.34 |
| | NORMAL | 5,420.0 | 3.76 | 53.21 | 5,320.76 | 683.86 | 718.97 | 992.26 | 0.50 | -0.49 | 1.66 | 167.50 |
| | NORMAL | 5,515.0 | 3.08 | 55.78 | 5,415.59 | 687.16 | 723.58 | 997.87 | 0.73 | -0.72 | 2.71 | 168.58 |
| | NORMAL | 5,610.0 | 2.73 | 55.52 | 5,510.47 | 689.88 | 727.55 | 1,002.63 | 0.37 | -0.37 | -0.27 | 182.03 |
| | NORMAL | 5,705.0 | 1.94 | 69.46 | 5,605.39 | 691.72 | 730.92 | 1,006.34 | 1.02 | -0.83 | 14.67 | 151.12 |
| | NORMAL | 5,800.0 | 1.47 | 74.94 | 5,700.35 | 692.60 | 733.61 | 1,008.89 | 0.52 | -0.49 | 5.77 | 163.59 |
| 2/21/2014 | NORMAL | 5,895.0 | 1.16 | 87.50 | 5,795.32 | 692.96 | 735.74 | 1,010.68 | 0.44 | -0.33 | 13.22 | 143.25 |
| | NORMAL | 5,989.0 | 0.95 | 92.20 | 5,889.31 | 692.97 | 737.47 | 1,011.94 | 0.24 | -0.22 | 5.00 | 159.94 |
| | NORMAL | 6,084.0 | 0.78 | 129.41 | 5,984.30 | 692.53 | 738.76 | 1,012.57 | 0.61 | -0.18 | 39.17 | 124.88 |
| | NORMAL | 6,179.0 | 1.39 | 182.31 | 6,079.28 | 690.97 | 739.21 | 1,011.82 | 1.17 | 0.64 | 55.68 | 86.98 |
| | NORMAL | 6,274.0 | 1.40 | 191.16 | 6,174.25 | 688.68 | 738.94 | 1,010.05 | 0.23 | 0.01 | 9.32 | 91.77 |
| | NORMAL | 6,369.0 | 0.79 | 201.59 | 6,269.24 | 686.93 | 738.48 | 1,008.51 | 0.67 | -0.64 | 10.98 | 167.07 |
| | NORMAL | 6,464.0 | 0.53 | 185.42 | 6,364.23 | 685.89 | 738.19 | 1,007.58 | 0.33 | -0.27 | -17.02 | 207.71 |
| | NORMAL | 6,559.0 | 0.73 | 242.07 | 6,459.22 | 685.17 | 737.62 | 1,006.66 | 0.66 | 0.21 | 59.63 | 101.91 |
| | NORMAL | 6,653.0 | 1.14 | 211.97 | 6,553.21 | 684.09 | 736.59 | 1,005.18 | 0.67 | 0.44 | -32.02 | 294.15 |
| | NORMAL | 6,748.0 | 1.58 | 220.31 | 6,648.19 | 682.29 | 735.24 | 1,002.96 | 0.51 | 0.46 | 8.78 | 28.43 |
| | NORMAL | 6,843.0 | 1.96 | 231.10 | 6,743.14 | 680.27 | 733.13 | 1,000.04 | 0.53 | 0.40 | 11.36 | 46.73 |
| | NORMAL | 6,938.0 | 2.18 | 225.71 | 6,838.08 | 677.99 | 730.58 | 996.62 | 0.31 | 0.23 | -5.67 | 315.78 |
| | NORMAL | 7,033.0 | 2.55 | 237.54 | 6,933.00 | 675.59 | 727.50 | 992.74 | 0.64 | 0.39 | 12.45 | 58.85 |
| | NORMAL | 7,128.0 | 2.55 | 232.29 | 7,027.91 | 673.17 | 724.04 | 988.56 | 0.25 | 0.00 | -5.53 | 267.38 |

2.1.2 Survey Stations (Continued)

| Date | Type | MD (ft) | Inc. (°) | Azi. (°) | TVD (ft) | N/S (ft) | E/W (ft) | V. sec. (ft) | DLS (°/100usft) | Build Rate (°/100usft) | Turn (°/100usft) | Tface (°) |
|-----------|--------|------------|-------------|-------------|-------------|-------------|-------------|-----------------|--------------------|---------------------------|---------------------|--------------|
| 2/21/2014 | NORMAL | 7,223.0 | 3.30 | 232.30 | 7,122.78 | 670.20 | 720.21 | 983.74 | 0.79 | 0.79 | 0.01 | 0.04 |
| | NORMAL | 7,318.0 | 3.61 | 233.94 | 7,217.61 | 686.77 | 715.63 | 978.05 | 0.34 | 0.33 | 1.73 | 18.50 |
| | NORMAL | 7,413.0 | 4.04 | 232.80 | 7,312.40 | 662.99 | 710.54 | 971.76 | 0.46 | 0.45 | -1.20 | 349.40 |
| | NORMAL | 7,508.0 | 4.26 | 229.66 | 7,407.15 | 658.68 | 705.19 | 964.92 | 0.33 | 0.23 | -3.31 | 312.50 |
| | NORMAL | 7,603.0 | 4.66 | 237.19 | 7,501.86 | 654.30 | 699.26 | 957.60 | 0.75 | 0.42 | 7.93 | 59.45 |
| | NORMAL | 7,692.0 | 4.64 | 230.56 | 7,590.57 | 650.06 | 693.44 | 950.46 | 0.60 | -0.02 | -7.45 | 264.57 |
| | NORMAL | 7,755.0 | 4.64 | 230.56 | 7,653.36 | 646.82 | 689.50 | 945.38 | 0.00 | 0.00 | 0.00 | 0.00 |