

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTNM OIL CONSERVATION  
ARTESIA DISTRICTFORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS** OCT 14 2014  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

|                                                                                                                                                     |                                                       |                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|
| 1. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other                    |                                                       | 5. Lease Serial No.<br>NMNM7752                      |
| 2. Name of Operator<br>COG OPERATING LLC<br>Contact: ROBYN ODOM<br>E-Mail: rodom@concho.com                                                         |                                                       | 6. If Indian, Allottee or Tribe Name                 |
| 3a. Address<br>ONE CONCHO CENTER 600 W ILLINOIS AVENUE<br>MIDLAND, TX 79701                                                                         | 3b. Phone No. (include area code)<br>Ph: 432-685-4385 | 7. If Unit or CA/Agreement, Name and/or No.          |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br>Sec 1 T17S R29E NESE 1910FSL 0180FEL<br>32.861410 N Lat, 104.019730 W Lon |                                                       | 8. Well Name and No.<br>PASSION 1 FEDERAL COM PDK 6H |
|                                                                                                                                                     |                                                       | 9. API Well No.<br>30-015-42410-00-X1                |
|                                                                                                                                                     |                                                       | 10. Field and Pool, or Exploratory<br>EMPIRE         |
|                                                                                                                                                     |                                                       | 11. County or Parish, and State<br>EDDY COUNTY, NM   |

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                           |                                                    |                                           |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       | Change to Original A                      |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            | PD                                        |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Immediately after kicking off and beginning the curve, a directional tool failure casued the curve direction to be turned toward the north in error. The tool failure was corrected promptly, but continuing strong drift towards the north caused the well to compound the problem and complicate the correction.

It eventually became obivious that the resulting well path was going to angle across the producing area instead of paralleling the south side of the producing area, and preclude drilling the eventual north offset; which would have wasted reserves. The decision was made to give in to the well's directional tendencies and make this well the north lateral, so that the well could be properly offset to the south and not strand reserves.

However, the naming/numbering convention for these wells is that the north lateral should be the #5H, rather than the #6H.

*Original COAs still stand*

*name is now 5H*

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #269742 verified by the BLM Well Information System  
For COG OPERATING LLC, sent to the Carlsbad  
Committed to AFMSS for processing by JENNIFER MASON on 10/10/2014 (15JAM0016SE)

|                                   |                          |
|-----------------------------------|--------------------------|
| Name (Printed/Typed) ROBYN ODOM   | Title REGUALTORY ANALYST |
| Signature (Electronic Submission) | Date 10/09/2014          |

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

|                                                                                                                                                                                                                                                           |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Approved By                                                                                                                                                                                                                                               | Title  |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | Office |

BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

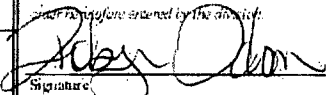
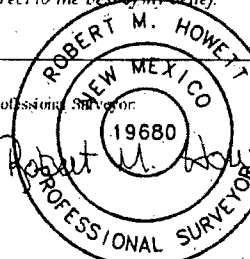
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

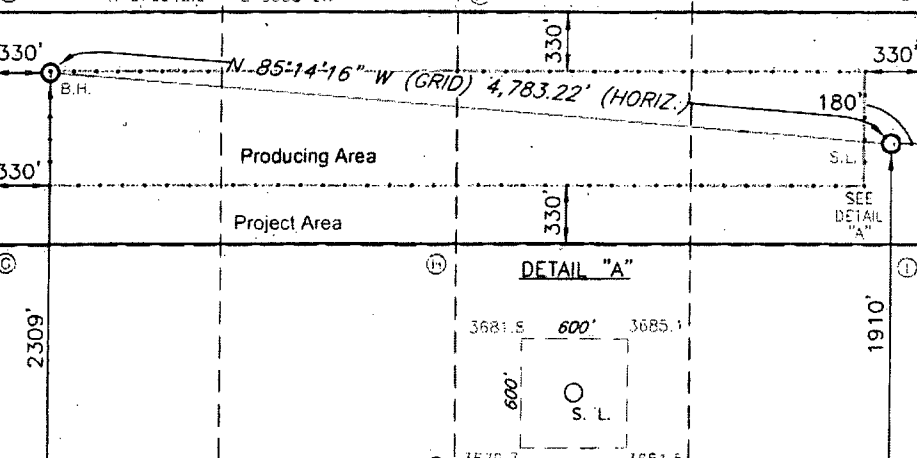
\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

**Additional data for EC transaction #269742 that would not fit on the form**

**32. Additional remarks, continued**

Therefore, COG respectfully requests to change the well number to 5H and the BHL of this well to be 2309' FSL & 330' FWL.  
Attached are the revised plat and directional plan.

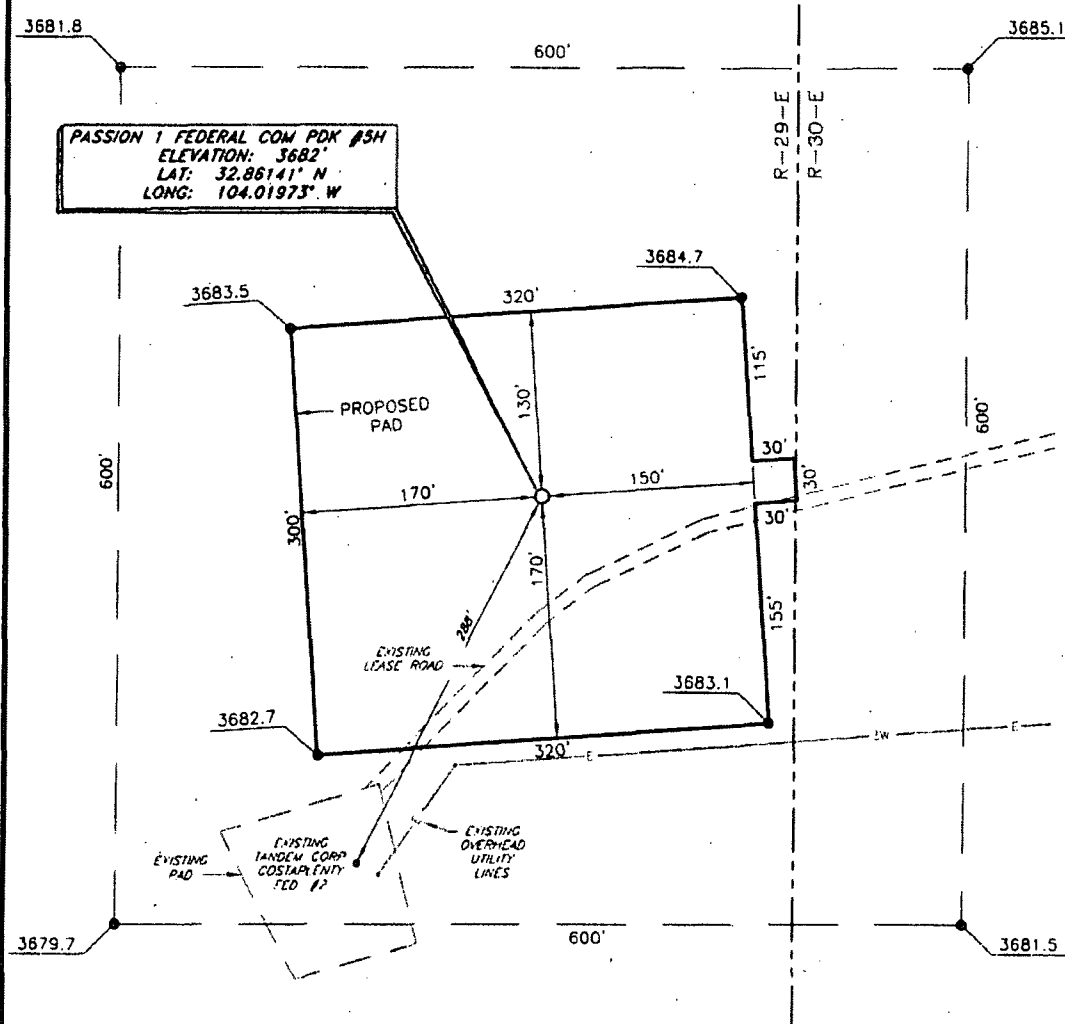
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4<br/>39.97<br/>AC.</p> <p><b>CORNER DATA</b><br/>MAD 27 - NM EAST</p> <p>A: BRASS CAP "1914"<br/>N 675322.5 - E 591200.5</p> <p>B: BRASS CAP "1914"<br/>N 677961.6 - E 591198.9</p> <p>C: BRASS CAP "1914"<br/>N 677961.9 - E 596474.4</p> <p>D: BRASS CAP "1914"<br/>N 675324.2 - E 596474.6</p> <p>E: BRASS CAP "1914"<br/>N 675326.5 - E 593844.9</p> <p>F: CALCULATED POINT<br/>N 677961.7 - E 593340.4</p> <p>G: CALCULATED POINT<br/>N 676642.0 - E 591199.7</p> <p>H: CALCULATED POINT<br/>N 676642.5 - E 593842.7</p>                                                                                                                                | <p>3<br/>40.00<br/>AC.</p> <p>2<br/>39.99<br/>AC.</p> <p>1<br/>39.99<br/>AC.</p> <p>I: CALCULATED POINT<br/>N 676643.0 - E 596474.5</p> <p><b>GEODETIC DATA</b><br/>MAD 27 - NM EAST</p> <p><b>SURFACE LOCATION</b><br/>N 677233.9<br/>E 596294.5</p> <p>LAT: 32.86141° N<br/>LONG: 104.01973° W</p> <p><b>BOTTOM HOLE LOCATION</b><br/>N 677630.8<br/>E 591529.0</p> | <p><b>7 OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief, and that this organization either owns a working interest or a mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to an industry pending agreement or a compulsory pooling and therefore entered by the district.</p> <p style="text-align: right;">10/09/2014</p> <p style="text-align: center;"> <br/>       Signature _____ Date _____<br/> <b>Robyn M. Odom</b><br/>       Printed Name<br/>       Rodom@concho.com<br/>       E-mail Address     </p> |
| <p><b>18 SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p style="text-align: right;">12/6/12</p> <p style="text-align: right;">Date of Survey</p> <p style="text-align: right;">Signature and Seal of Professional Surveyor</p> <p style="text-align: right;"> <br/>       19680<br/>       Certificate Number<br/>       Revised: 10/9/14 BH &amp; Well No.     </p> |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



The diagram is a survey plat showing a well location. It includes a grid with coordinates (e.g., 330', 360', 365.1, 367.8, 368.5, 369.7, 370.9, 372.1, 373.3, 374.5, 375.7, 376.9, 378.1, 379.3, 380.5, 381.7, 382.9, 384.1, 385.3, 386.5, 387.7, 388.9, 390.1, 391.3, 392.5, 393.7, 394.9, 396.1, 397.3, 398.5, 399.7, 400.9, 402.1, 403.3, 404.5, 405.7, 406.9, 408.1, 409.3, 410.5, 411.7, 412.9, 414.1, 415.3, 416.5, 417.7, 418.9, 420.1, 421.3, 422.5, 423.7, 424.9, 426.1, 427.3, 428.5, 429.7, 430.9, 432.1, 433.3, 434.5, 435.7, 436.9, 438.1, 439.3, 440.5, 441.7, 442.9, 444.1, 445.3, 446.5, 447.7, 448.9, 450.1, 451.3, 452.5, 453.7, 454.9, 456.1, 457.3, 458.5, 459.7, 460.9, 462.1, 463.3, 464.5, 465.7, 466.9, 468.1, 469.3, 470.5, 471.7, 472.9, 474.1, 475.3, 476.5, 477.7, 478.9, 480.1, 481.3, 482.5, 483.7, 484.9, 486.1, 487.3, 488.5, 489.7, 490.9, 492.1, 493.3, 494.5, 495.7, 496.9, 498.1, 499.3, 500.5, 501.7, 502.9, 504.1, 505.3, 506.5, 507.7, 508.9, 510.1, 511.3, 512.5, 513.7, 514.9, 516.1, 517.3, 518.5, 519.7, 520.9, 522.1, 523.3, 524.5, 525.7, 526.9, 528.1, 529.3, 530.5, 531.7, 532.9, 534.1, 535.3, 536.5, 537.7, 538.9, 540.1, 541.3, 542.5, 543.7, 544.9, 546.1, 547.3, 548.5, 549.7, 550.9, 552.1, 553.3, 554.5, 555.7, 556.9, 558.1, 559.3, 560.5, 561.7, 562.9, 564.1, 565.3, 566.5, 567.7, 568.9, 570.1, 571.3, 572.5, 573.7, 574.9, 576.1, 577.3, 578.5, 579.7, 580.9, 582.1, 583.3, 584.5, 585.7, 586.9, 588.1, 589.3, 590.5, 591.7, 592.9, 594.1, 595.3, 596.5, 597.7, 598.9, 600.1, 601.3, 602.5, 603.7, 604.9, 606.1, 607.3, 608.5, 609.7, 610.9, 612.1, 613.3, 614.5, 615.7, 616.9, 618.1, 619.3, 620.5, 621.7, 622.9, 624.1, 625.3, 626.5, 627.7, 628.9, 630.1, 631.3, 632.5, 633.7, 634.9, 636.1, 637.3, 638.5, 639.7, 640.9, 642.1, 643.3, 644.5, 645.7, 646.9, 648.1, 649.3, 650.5, 651.7, 652.9, 654.1, 655.3, 656.5, 657.7, 658.9, 660.1, 661.3, 662.5, 663.7, 664.9, 666.1, 667.3, 668.5, 669.7, 670.9, 672.1, 673.3, 674.5, 675.7, 676.9, 678.1, 679.3, 680.5, 681.7, 682.9, 684.1, 685.3, 686.5, 687.7, 688.9, 690.1, 691.3, 692.5, 693.7, 694.9, 696.1, 697.3, 698.5, 699.7, 700.9, 702.1, 703.3, 704.5, 705.7, 706.9, 708.1, 709.3, 710.5, 711.7, 712.9, 714.1, 715.3, 716.5, 717.7, 718.9, 720.1, 721.3, 722.5, 723.7, 724.9, 726.1, 727.3, 728.5, 729.7, 730.9, 732.1, 733.3, 734.5, 735.7, 736.9, 738.1, 739.3, 740.5, 741.7, 742.9, 744.1, 745.3, 746.5, 747.7, 748.9, 750.1, 751.3, 752.5, 753.7, 754.9, 756.1, 757.3, 758.5, 759.7, 760.9, 762.1, 763.3, 764.5, 765.7, 766.9, 768.1, 769.3, 770.5, 771.7, 772.9, 774.1, 775.3, 776.5, 777.7, 778.9, 780.1, 781.3, 782.5, 783.7, 784.9, 786.1, 787.3, 788.5, 789.7, 790.9, 792.1, 793.3, 794.5, 795.7, 796.9, 798.1, 799.3, 800.5, 801.7, 802.9, 804.1, 805.3, 806.5, 807.7, 808.9, 810.1, 811.3, 812.5, 813.7, 814.9, 816.1, 817.3, 818.5, 819.7, 820.9, 822.1, 823.3, 824.5, 825.7, 826.9, 828.1, 829.3, 830.5, 831.7, 832.9, 834.1, 835.3, 836.5, 837.7, 838.9, 840.1, 841.3, 842.5, 843.7, 844.9, 846.1, 847.3, 848.5, 849.7, 850.9, 852.1, 853.3, 854.5, 855.7, 856.9, 858.1, 859.3, 860.5, 86

# COG OPERATING, LLC

Passion 1 Federal Com PDK #5H  
(1910' FSL & 180' FEL)  
Section 1, T-17-S, R-29-E,  
N. M. P. M., Eddy Co., New Mexico



## DIRECTIONS TO LOCATION

From the intersection of County Road No. 215 (Keweenaw) and County Road No. 257 (Mallet Road);

Go East on County Road No. 257 approx. 1.0 mile;

Turn right on an existing lease road;

Go South on lease road approx. 0.7 mile;

Turn right; Go West approx. 350 feet;

Location is approx. 85' North of the lease road.

SCALE: 1" = 100'

BEARINGS ARE  
MAG 27 - NW EAST  
DISTANCES ARE  
GROUND.

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|                     |           |         |
|---------------------|-----------|---------|
| 2                   | Well Name | 1/30/14 |
| 1                   | Well Name | 5/2/13  |
| NO.                 | REVISION  | DATE    |
| JOB NO.: LS120011   |           |         |
| DWG. NO.: 120011PAD |           |         |

PROSPERITY CONSULTANTS, LLC



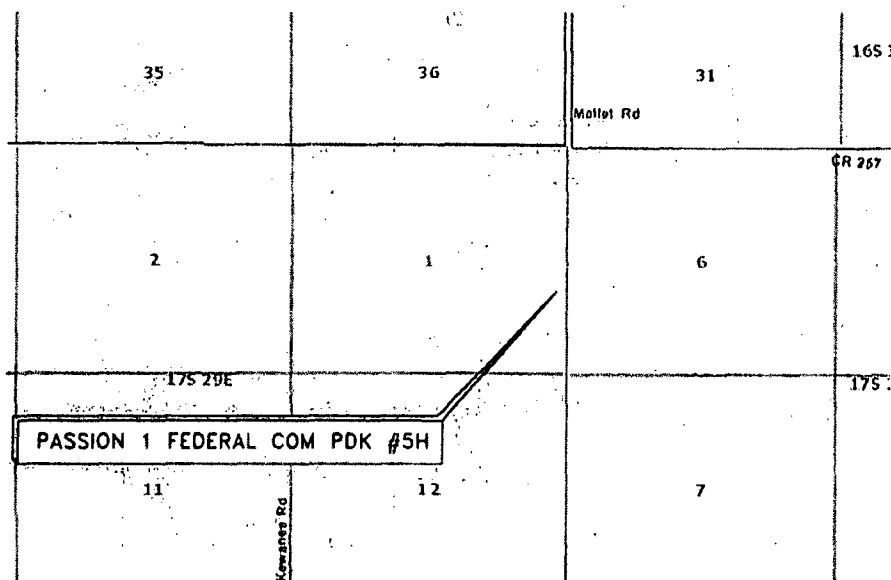
2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

© (512) 992-2087 | (512) 251-2518

|                    |
|--------------------|
| SCALE: 1" = 100'   |
| DATE: 12/6/12      |
| SURVEYED BY: RH/CB |
| DRAWN BY: LWB      |
| APPROVED BY: LWB   |
| SHEET: 1 OF 1      |

# VICINITY MAP

NOT TO SCALE.



SECTION 1, TWP. 17 SOUTH, RGE. 29 EAST,  
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: COG Operating, LLC  
LEASE: Passion 1 Federal Com PDK  
WELL NO.: 5H  
ELEVATION: 3682'  
LOCATION: 1910' FSL & 180' FEL

## DIRECTIONS TO LOCATION

From the intersection of County Road No. 215 (Keweenaw)  
and County Road No. 257 (Mallet Road);

Go East on County Road No. 257 approx. 1.0 mile;

Turn right on an existing lease road;

Go South on lease road approx. 0.7 mile;

Turn right; Go West approx. 350 feet;

Location is approx. 85' North of the lease road.

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|           |           |         |
|-----------|-----------|---------|
| 2         | Well Name | 1/30/14 |
| 1         | Well Name | 5/2/13  |
| NO.       | REVISION  | DATE    |
| JOB NO.:  | LS120011  |         |
| DWG. NO.: | 120011VM  |         |

PROSPERITY CONSULTANTS, LLC

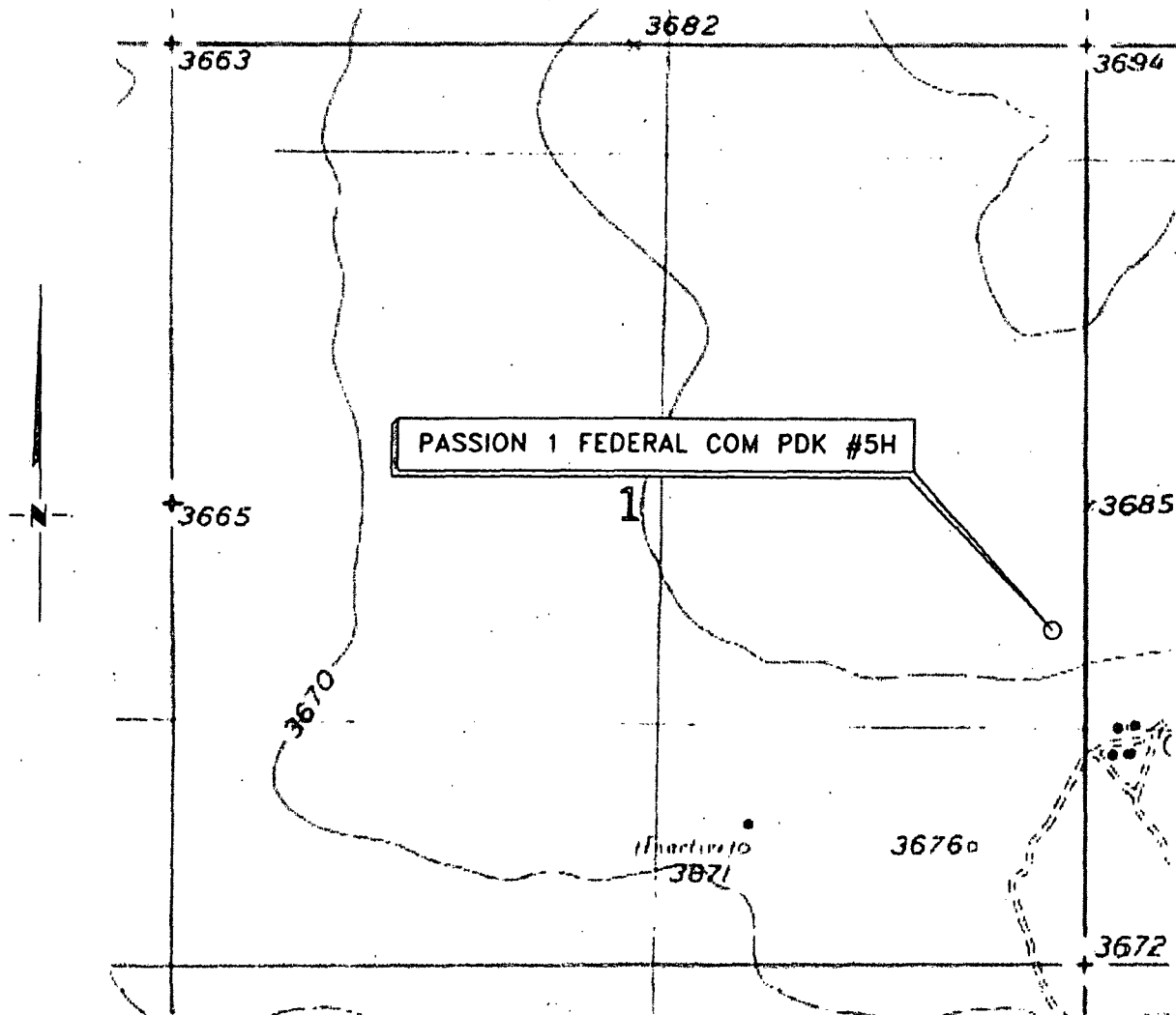


2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

o (512) 997-7087 f (512) 251-2518

|                    |
|--------------------|
| SCALE: 1" = 1000'  |
| DATE: 12/6/2012    |
| SURVEYED BY: RH/GB |
| DRAWN BY: LWB      |
| APPROVED BY: LWB   |
| SHEET : 1 OF 1     |

# LOCATION VERIFICATION MAP



SECTION 1, TWP. 17 SOUTH, RGE. 29 EAST,  
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: COG Operating, LLC  
LEASE: Passion 1 Federal Com PDK  
WELL NO.: 5H  
ELEVATION: 3682'

LOCATION: 1910' FSL & 180' FEL  
CONTOUR INTERVAL: 10'  
USGS TOPO. SOURCE MAP:  
Red Lake SE, NM (1955)

Copyright 2012 - All Rights Reserved

|                     |           |         |
|---------------------|-----------|---------|
|                     |           |         |
| 2                   | Well Name | 1/30/14 |
| 1                   | Well Name | 5/2/13  |
| NO.                 | REVISION  | DATE    |
| JOB NO.: LS120011   |           |         |
| DWG. NO.: 120011LVM |           |         |

PROSPERITY CONSULTANTS, LLC



2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

o (512) 992-2087 f (512) 251-2518

|                    |
|--------------------|
| SCALE: 1" = 1000'  |
| DATE: 12/6/12      |
| SURVEYED BY: RH/GB |
| DRAWN BY: LWB      |
| APPROVED BY: LWB   |
| SHEET : 1 OF 1     |

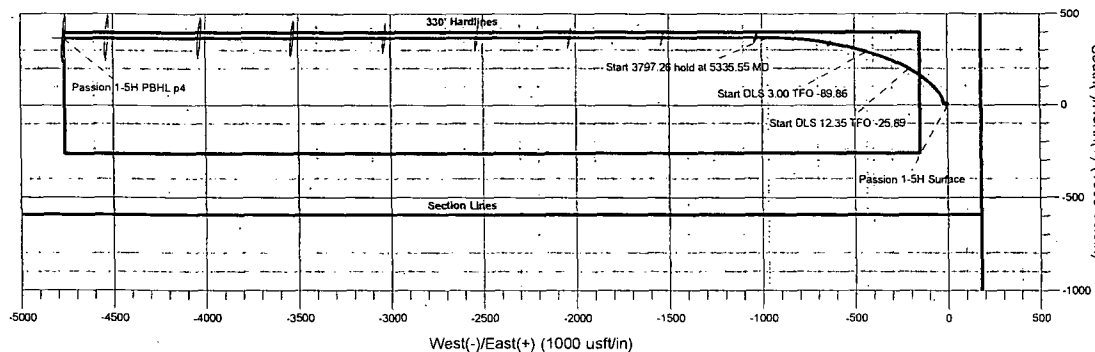
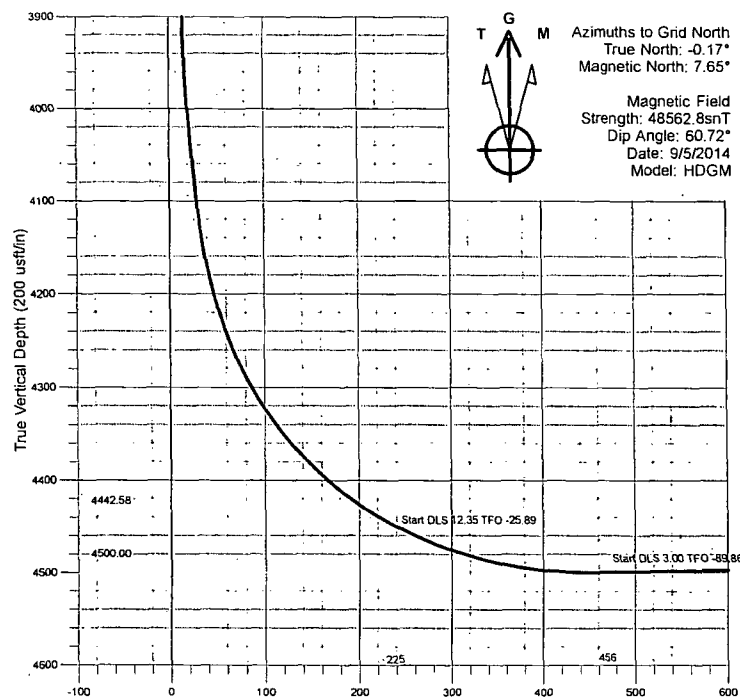
# COG OPERATING, LLC

Field: Eddy County, NM  
Site: Passion 1 Federal Com PDK 5H  
Well: 5H  
Wellbore: Lateral  
Plan: Plan #4



## TARGET DETAILS

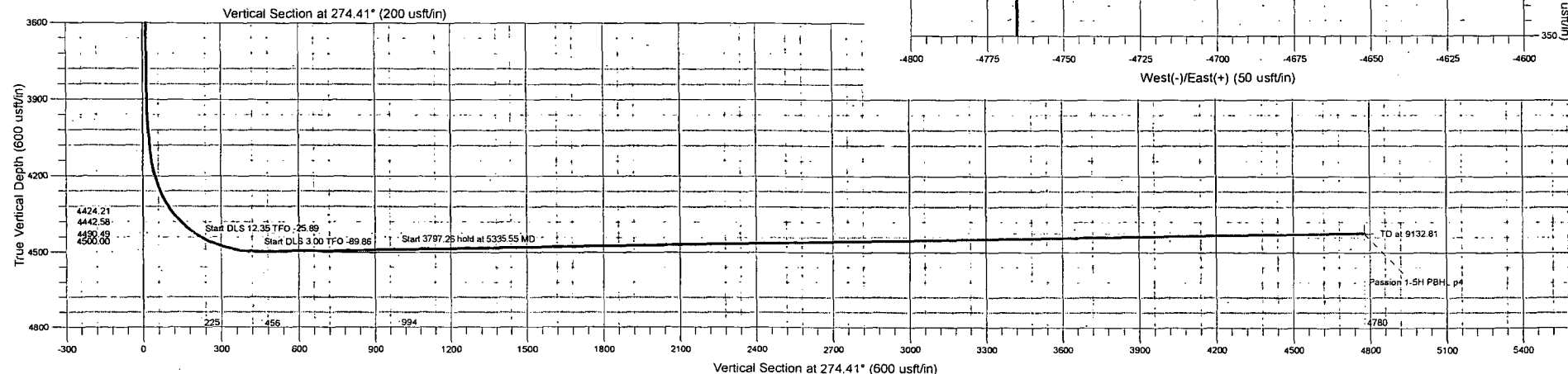
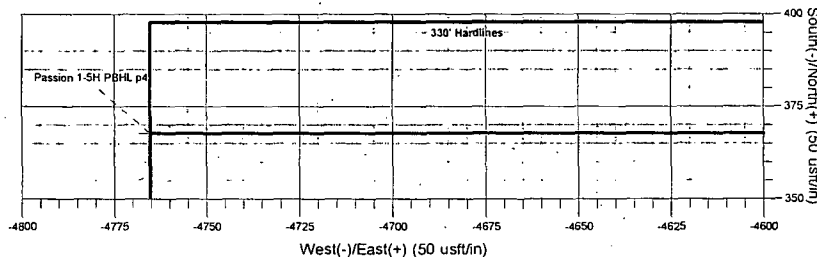
| Name                 | TVD     | +N/-S  | +E/-W    | Northing  | Easting   | Latitude        | Longitude       | Shape |
|----------------------|---------|--------|----------|-----------|-----------|-----------------|-----------------|-------|
| Passion 1-5H Surface | 0.00    | 0.00   | 0.00     | 677233.90 | 595294.50 | 32° 51' 41.06 N | 104° 1' 11.04 W | Point |
| Passion 1-5H PBHL p4 | 4424.21 | 367.72 | -4765.38 | 677601.62 | 591529.12 | 32° 51' 44.84 N | 104° 2' 6.90 W  | Point |



## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N/-S  | +E/-W    | Dleg  | TFace  | VSec    | Target             |
|-----|---------|-------|--------|---------|--------|----------|-------|--------|---------|--------------------|
| 1   | 4542.00 | 62.50 | 299.30 | 4442.58 | 198.95 | -210.52  | 0.00  | 0.00   | 225.19  |                    |
| 2   | 4794.08 | 91.00 | 286.25 | 4500.00 | 291.21 | -434.55  | 12.35 | -25.89 | 455.65  |                    |
| 3   | 5335.55 | 91.00 | 270.00 | 4490.49 | 367.49 | -968.70  | 3.00  | -89.86 | 994.09  |                    |
| 4   | 9132.81 | 91.00 | 270.00 | 4424.21 | 367.72 | -4765.38 | 0.00  | 0.00   | 4779.55 | Passion 5H PBHL p4 |

Section Distances  
Sec1, T17S, R29E  
SHL - Unit I  
1910'FSL, 180'FEL  
PBHL - Unit L  
2309'FSL, 330'FWL



# Archer

ARCHER DIRECTIONAL DRILLING SERVICES  
12101 Cutten Rd. Houston, Texas 77066  
Phone: 281-301-2600 Fax: 281-301-2795

Design: Plan #4 (5H/Lateral)  
Created By: Ivonne Gonzalez  
Date: 23:21, October 08 2014

# **COG OPERATING, LLC**

Eddy County, NM

Passion 1 Federal Com PDK 5H

Lateral

Plan: Plan #4

## **Standard Planning Report**

08 October, 2014

Section Distances

Sec1,T17S,R29E

SHL - Unit I

1910'FSL, 180'FEL

PBHL - Unit L

2309'FSL, 330'FWL



# Archer

## Planning Report

|           |                              |                              |                                        |
|-----------|------------------------------|------------------------------|----------------------------------------|
| Database: | EDM R5000.1 MULTI            | Local/Co-ordinate Reference: | Well 5H                                |
| Company:  | COG OPERATING, LLC           | TVD Reference:               | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Project:  | Eddy County, NM              | MD Reference:                | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Site:     | Passion 1 Federal Com PDK 5H | North Reference:             | Grid                                   |
| Well:     | 5H                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Lateral                      |                              |                                        |
| Design:   | Plan #4                      |                              |                                        |

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

|                       |  |           |  |                 |  |                              |  |                   |  |                 |  |
|-----------------------|--|-----------|--|-----------------|--|------------------------------|--|-------------------|--|-----------------|--|
| Site                  |  |           |  |                 |  | Passion 1 Federal Com PDK 5H |  |                   |  |                 |  |
| Site Position:        |  | Northing: |  | 677,233.90 usft |  | Latitude:                    |  | 32° 51' 41.06 N   |  |                 |  |
| From:                 |  | Map       |  | Easting:        |  | 596,294.50 usft              |  | Longitude:        |  | 104° 1' 11.04 W |  |
| Position Uncertainty: |  | 0.00 usft |  | Slot Radius:    |  | 13.200 in                    |  | Grid Convergence: |  | 0.17 °          |  |

|                      |       |           |                     |                 |               |                 |
|----------------------|-------|-----------|---------------------|-----------------|---------------|-----------------|
| Well:                | 5H    |           |                     |                 |               |                 |
| Well Position        | +N/-S | 0.00 usft | Northing:           | 677,233.90 usft | Latitude:     | 32° 51' 41.06 N |
|                      | +E/-W | 0.00 usft | Easting:            | 596,294.50 usft | Longitude:    | 104° 1' 11.04 W |
| Position Uncertainty |       | 0.00 usft | Wellhead Elevation: |                 | Ground Level: | 3,682.00 usft   |

|           |            |             |                    |                  |                        |
|-----------|------------|-------------|--------------------|------------------|------------------------|
| Wellbore  |            | Lateral     |                    |                  |                        |
| Magnetics | Model/Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | HDGM       | 9/5/2014    | 7.82               | 60.72            | 48,563                 |

|                              |  |                  |  |           |         |        |               |           |          |  |
|------------------------------|--|------------------|--|-----------|---------|--------|---------------|-----------|----------|--|
| Design                       |  |                  |  |           | Plan #4 |        |               |           |          |  |
| Audit Notes: plan for filing |  |                  |  |           |         |        |               |           |          |  |
| Version:                     |  | Phase:           |  | PROTOTYPE |         |        | Tie On Depth: |           | 4,542.00 |  |
| Vertical Section:            |  | Depth From (TVD) |  | +N/-S     |         | +E/-W  |               | Direction |          |  |
|                              |  | (usft)           |  | (usft)    |         | (usft) |               | (°)       |          |  |
|                              |  | 0.00             |  | 0.00      |         | 0.00   |               | 274.41    |          |  |

| Plan Sections               |                    |                |                             |                 |                 |                               |                              |                             |            |                      |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|----------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target               |
| 4,542.00                    | 62.50              | 299.30         | 4,442.58                    | 198.95          | -210.52         | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 4,794.08                    | 91.00              | 286.25         | 4,500.00                    | 291.21          | -434.55         | 12.35                         | 11.31                        | -5.18                       | -25.89     |                      |
| 5,335.55                    | 91.00              | 270.00         | 4,490.49                    | 367.49          | -968.70         | 3.00                          | 0.00                         | -3.00                       | -89.86     |                      |
| 9,132.81                    | 91.00              | 270.00         | 4,424.21                    | 367.72          | -4,765.38       | 0.00                          | 0.00                         | 0.00                        | 0.00       | Passion 1-5H PBHL p4 |

# Archer

## Planning Report

|           |                              |                              |                                        |
|-----------|------------------------------|------------------------------|----------------------------------------|
| Database: | EDM.R5000.1 MULTI            | Local Co-ordinate Reference: | Well 5H                                |
| Company:  | COG OPERATING, LLC           | TVD Reference:               | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Project:  | Eddy County, NM              | MD Reference:                | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Site:     | Passion 1 Federal Com PDK 5H | North Reference:             | Grid                                   |
| Well:     | 5H                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Lateral                      |                              |                                        |
| Design:   | Plan #4                      |                              |                                        |

| Planned Survey        |                 |             |                       |            |            |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|------------|------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | N-S (usft) | E-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00       | 0.00       | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 100.00                | 0.26            | 314.57      | 100.00                | 0.16       | -0.16      | 0.17                    | 0.26                    | 0.26                   | 0.00                  |
| 200.00                | 0.57            | 281.23      | 200.00                | 0.42       | -0.81      | 0.84                    | 0.38                    | 0.31                   | -33.34                |
| 300.00                | 0.75            | 279.94      | 299.99                | 0.63       | -1.94      | 1.99                    | 0.18                    | 0.18                   | -1.29                 |
| 400.00                | 0.29            | 256.26      | 399.99                | 0.68       | -2.83      | 2.88                    | 0.50                    | -0.46                  | -23.68                |
| 500.00                | 0.40            | 267.02      | 499.98                | 0.60       | -3.43      | 3.46                    | 0.13                    | 0.11                   | 10.76                 |
| 600.00                | 0.12            | -246.97     | 599.98                | 0.54       | -3.87      | 3.90                    | 0.29                    | -0.28                  | -20.05                |
| 700.00                | 0.32            | 210.64      | 699.98                | 0.26       | -4.11      | 4.12                    | 0.23                    | 0.20                   | -36.33                |
| 800.00                | 0.19            | 359.83      | 799.98                | 0.18       | -4.26      | 4.26                    | 0.49                    | -0.13                  | 149.19                |
| 900.00                | 0.24            | 84.92       | 899.98                | 0.37       | -4.05      | 4.06                    | 0.29                    | 0.05                   | 85.09                 |
| 1,000.00              | 0.80            | 89.67       | 999.98                | 0.39       | -3.14      | 3.16                    | 0.56                    | 0.56                   | 4.75                  |
| 1,100.00              | 1.13            | 86.68       | 1,099.96              | 0.45       | -1.46      | 1.49                    | 0.33                    | 0.33                   | -2.99                 |
| 1,200.00              | 0.67            | 73.60       | 1,199.95              | 0.68       | 0.09       | -0.04                   | 0.50                    | -0.46                  | -13.08                |
| 1,300.00              | 0.53            | 88.01       | 1,299.94              | 0.86       | 1.11       | -1.04                   | 0.20                    | -0.14                  | 14.41                 |
| 1,400.00              | 0.20            | 89.26       | 1,399.94              | 0.87       | 1.75       | -1.67                   | 0.33                    | -0.33                  | 1.25                  |
| 1,500.00              | 0.15            | 46.97       | 1,499.94              | 0.97       | 2.02       | -1.94                   | 0.13                    | -0.05                  | -42.29                |
| 1,600.00              | 0.28            | 105.06      | 1,599.94              | 0.99       | 2.35       | -2.27                   | 0.24                    | 0.13                   | 58.09                 |
| 1,700.00              | 0.31            | 106.89      | 1,699.94              | 0.85       | 2.84       | -2.77                   | 0.03                    | 0.03                   | 1.83                  |
| 1,800.00              | 0.15            | 101.51      | 1,799.94              | 0.75       | 3.23       | -3.16                   | 0.16                    | -0.16                  | -5.38                 |
| 1,900.00              | 0.14            | 64.35       | 1,899.94              | 0.77       | 3.47       | -3.40                   | 0.09                    | -0.01                  | -37.16                |
| 2,000.00              | 0.23            | 56.04       | 1,999.94              | 0.94       | 3.75       | -3.66                   | 0.09                    | 0.09                   | -8.31                 |
| 2,100.00              | 0.32            | 9.67        | 2,099.94              | 1.32       | 3.96       | -3.85                   | 0.23                    | 0.09                   | -46.37                |
| 2,200.00              | 0.22            | 326.33      | 2,199.94              | 1.76       | 3.90       | -3.75                   | 0.22                    | -0.10                  | -43.34                |
| 2,300.00              | 0.36            | 2.83        | 2,299.94              | 2.23       | 3.81       | -3.63                   | 0.23                    | 0.14                   | 36.50                 |
| 2,400.00              | 0.63            | 345.96      | 2,399.93              | 3.08       | 3.69       | -3.44                   | 0.30                    | -0.27                  | -16.87                |
| 2,500.00              | 0.49            | 334.17      | 2,499.93              | 4.00       | 3.37       | -3.05                   | 0.18                    | -0.14                  | -11.79                |
| 2,600.00              | 0.79            | 316.65      | 2,599.92              | 4.88       | 2.71       | -2.33                   | 0.35                    | 0.30                   | -17.52                |
| 2,700.00              | 0.74            | 308.72      | 2,699.91              | 5.79       | 1.73       | -1.28                   | 0.12                    | -0.05                  | -7.93                 |
| 2,800.00              | 1.16            | 304.92      | 2,799.90              | 6.77       | 0.40       | 0.12                    | 0.42                    | 0.42                   | -3.80                 |
| 2,900.00              | 1.39            | 294.52      | 2,899.87              | 7.86       | -1.53      | 2.13                    | 0.33                    | 0.23                   | -10.40                |
| 3,000.00              | 1.49            | 287.31      | 2,999.84              | 8.75       | -3.88      | 4.54                    | 0.21                    | 0.10                   | -7.21                 |
| 3,100.00              | 1.04            | 277.81      | 3,099.82              | 9.26       | -8.02      | 6.71                    | 0.49                    | -0.45                  | -9.50                 |
| 3,200.00              | 0.79            | 249.95      | 3,199.80              | 9.14       | -7.56      | 8.24                    | 0.50                    | -0.25                  | -27.86                |
| 3,300.00              | 0.71            | 251.99      | 3,299.80              | 8.72       | -8.80      | 9.45                    | 0.08                    | -0.08                  | 2.04                  |
| 3,400.00              | 0.86            | 248.21      | 3,399.79              | 8.25       | -10.09     | 10.69                   | 0.16                    | 0.15                   | -3.78                 |
| 3,500.00              | 0.66            | 257.20      | 3,499.78              | 7.84       | -11.35     | 11.91                   | 0.23                    | -0.20                  | 8.99                  |
| 3,600.00              | 0.59            | 230.17      | 3,599.77              | 7.38       | -12.30     | 12.83                   | 0.30                    | -0.07                  | -27.03                |
| 3,700.00              | 0.76            | 234.43      | 3,699.77              | 6.67       | -13.24     | 13.71                   | 0.18                    | 0.17                   | 4.26                  |
| 3,813.00              | 0.40            | 230.38      | 3,812.76              | 5.98       | -14.15     | 14.57                   | 0.32                    | -0.32                  | -3.58                 |
| 3,848.00              | 0.40            | 184.20      | 3,847.76              | 5.78       | -14.25     | 14.66                   | 0.90                    | 0.00                   | -131.94               |
| 3,880.00              | 0.40            | 217.80      | 3,879.76              | 5.58       | -14.33     | 14.72                   | 0.72                    | 0.00                   | 105.00                |
| 3,911.00              | 0.80            | 291.10      | 3,910.76              | 5.57       | -14.60     | 14.98                   | 2.53                    | 1.29                   | 236.45                |
| 3,943.00              | 3.20            | 319.80      | 3,942.73              | 6.33       | -15.38     | 15.83                   | 7.90                    | 7.50                   | 89.69                 |
| 3,974.00              | 5.80            | 324.20      | 3,973.64              | 8.27       | -16.86     | 17.44                   | 8.45                    | 8.39                   | 14.19                 |
| 4,006.00              | 8.90            | 329.70      | 4,005.37              | 11.72      | -19.05     | 19.90                   | 9.92                    | 9.69                   | 17.19                 |
| 4,037.00              | 12.00           | 337.10      | 4,035.85              | 16.76      | -21.52     | 22.74                   | 10.88                   | 10.00                  | 23.87                 |
| 4,068.00              | 14.70           | 344.60      | 4,066.02              | 23.52      | -23.82     | 25.56                   | 10.33                   | 8.71                   | 24.19                 |
| 4,100.00              | 16.70           | 345.80      | 4,096.82              | 31.89      | -26.02     | 28.40                   | 6.33                    | 6.25                   | 3.75                  |
| 4,132.00              | 17.80           | 338.50      | 4,127.38              | 40.90      | -28.94     | 32.00                   | 7.58                    | 3.44                   | -22.81                |
| 4,163.00              | 19.20           | 331.60      | 4,156.78              | 49.79      | -33.11     | 36.84                   | 8.38                    | 4.52                   | -22.26                |
| 4,195.00              | 21.50           | 326.40      | 4,186.79              | 59.31      | -38.86     | 43.30                   | 9.14                    | 7.19                   | -16.25                |
| 4,227.00              | 24.40           | 323.30      | 4,216.25              | 69.50      | -46.05     | 51.26                   | 9.82                    | 9.06                   | -9.69                 |
| 4,258.00              | 27.60           | 319.60      | 4,244.11              | 80.10      | -54.54     | 60.53                   | 11.57                   | 10.32                  | -11.94                |
| 4,290.00              | 31.20           | 316.10      | 4,271.99              | 91.72      | -65.09     | 71.95                   | 12.46                   | 11.25                  | -10.94                |

# Archer Planning Report

|           |                              |                              |                                        |
|-----------|------------------------------|------------------------------|----------------------------------------|
| Database: | EDM.R5000.1 MULTI            | Local Co-ordinate Reference: | Well 5H                                |
| Company:  | COG OPERATING, LLC           | TVD Reference:               | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Project:  | Eddy County, NM              | MD Reference:                | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Site:     | Passion 1 Federal Com PDK 5H | North Reference:             | Grid.                                  |
| Well:     | 5H                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Lateral                      |                              |                                        |
| Design:   | Plan #4                      |                              |                                        |

| Planned Survey                   |                 |             |                       |              |              |                         |                         |                        |                       |
|----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)            | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 4,322.00                         | 35.20           | 313.50      | 4,298.76              | 104.05       | -77.54       | 85.31                   | 13.27                   | 12.50                  | -8.13                 |
| 4,353.00                         | 39.30           | 311.60      | 4,323.43              | 116.72       | -91.36       | 100.07                  | 13.73                   | 13.23                  | -6.13                 |
| 4,385.00                         | 43.00           | 309.50      | 4,347.53              | 130.40       | -107.37      | 117.08                  | 12.34                   | 11.56                  | -6.56                 |
| 4,416.00                         | 46.90           | 307.10      | 4,369.46              | 143.96       | -124.56      | 135.26                  | 13.72                   | 12.58                  | -7.74                 |
| 4,448.00                         | 50.30           | 304.50      | 4,390.62              | 157.98       | -144.03      | 155.75                  | 12.25                   | 10.63                  | -8.13                 |
| 4,479.00                         | 54.30           | 302.50      | 4,409.58              | 171.51       | -164.48      | 177.19                  | 13.88                   | 12.90                  | -6.45                 |
| 4,510.00                         | 58.30           | 300.80      | 4,426.78              | 185.03       | -186.44      | 200.11                  | 13.69                   | 12.90                  | -5.48                 |
| 4,542.00                         | 62.50           | 299.30      | 4,442.58              | 198.95       | -210.52      | 225.19                  | 13.74                   | 13.13                  | -4.69                 |
| Start DLS 12.35 TFO -25.89       |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,550.00                         | 63.39           | 298.82      | 4,446.22              | 202.41       | -216.75      | 231.67                  | 12.35                   | 11.12                  | -6.03                 |
| 4,575.00                         | 66.18           | 297.36      | 4,456.87              | 213.05       | -236.70      | 252.38                  | 12.35                   | 11.16                  | -5.85                 |
| 4,600.00                         | 68.98           | 295.96      | 4,466.40              | 223.42       | -257.35      | 273.77                  | 12.35                   | 11.22                  | -5.60                 |
| 4,625.00                         | 71.80           | 294.61      | 4,474.79              | 233.47       | -278.65      | 295.77                  | 12.35                   | 11.26                  | -5.39                 |
| 4,650.00                         | 74.62           | 293.30      | 4,482.01              | 243.19       | -300.52      | 318.33                  | 12.35                   | 11.30                  | -5.22                 |
| 4,675.00                         | 77.46           | 292.03      | 4,488.04              | 252.54       | -322.90      | 341.36                  | 12.35                   | 11.33                  | -5.08                 |
| 4,700.00                         | 80.29           | 290.79      | 4,492.87              | 261.49       | -345.74      | 364.82                  | 12.35                   | 11.35                  | -4.97                 |
| 4,725.00                         | 83.14           | 289.57      | 4,496.47              | 270.02       | -368.96      | 388.63                  | 12.35                   | 11.37                  | -4.89                 |
| 4,750.00                         | 85.98           | 288.36      | 4,498.84              | 278.11       | -392.49      | 412.71                  | 12.35                   | 11.38                  | -4.83                 |
| 4,775.00                         | 88.83           | 287.16      | 4,499.97              | 285.72       | -416.27      | 437.01                  | 12.35                   | 11.39                  | -4.79                 |
| 4,794.08                         | 91.00           | 286.25      | 4,500.00              | 291.21       | -434.55      | 455.65                  | 12.35                   | 11.39                  | -4.78                 |
| Start DLS 3.00 TFO -89.86        |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,800.00                         | 91.00           | 286.07      | 4,499.90              | 292.86       | -440.23      | 461.44                  | 3.00                    | 0.01                   | -3.00                 |
| 4,900.00                         | 91.01           | 283.07      | 4,498.15              | 318.01       | -536.99      | 559.85                  | 3.00                    | 0.01                   | -3.00                 |
| 5,000.00                         | 91.01           | 280.07      | 4,496.39              | 338.06       | -634.93      | 659.04                  | 3.00                    | 0.00                   | -3.00                 |
| 5,100.00                         | 91.01           | 277.07      | 4,494.62              | 352.96       | -733.78      | 758.75                  | 3.00                    | 0.00                   | -3.00                 |
| 5,200.00                         | 91.01           | 274.07      | 4,492.86              | 362.67       | -833.28      | 858.70                  | 3.00                    | 0.00                   | -3.00                 |
| 5,300.00                         | 91.00           | 271.07      | 4,491.11              | 367.15       | -933.16      | 958.63                  | 3.00                    | -0.01                  | -3.00                 |
| 5,335.55                         | 91.00           | 270.00      | 4,490.49              | 367.49       | -968.70      | 994.09                  | 3.00                    | -0.01                  | -3.00                 |
| Start 3797.26 hold at 5335.55 MD |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,400.00                         | 91.00           | 270.00      | 4,489.36              | 367.49       | -1,033.14    | 1,058.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00                         | 91.00           | 270.00      | 4,487.62              | 367.50       | -1,133.12    | 1,158.03                | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00                         | 91.00           | 270.00      | 4,485.87              | 367.50       | -1,233.11    | 1,257.72                | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                         | 91.00           | 270.00      | 4,484.13              | 367.51       | -1,333.09    | 1,357.41                | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00                         | 91.00           | 270.00      | 4,482.38              | 367.51       | -1,433.08    | 1,457.10                | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                         | 91.00           | 270.00      | 4,480.63              | 367.52       | -1,533.06    | 1,556.78                | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00                         | 91.00           | 270.00      | 4,478.89              | 367.53       | -1,633.05    | 1,656.47                | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                         | 91.00           | 270.00      | 4,477.14              | 367.53       | -1,733.03    | 1,756.16                | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                         | 91.00           | 270.00      | 4,475.40              | 367.54       | -1,833.02    | 1,855.85                | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                         | 91.00           | 270.00      | 4,473.65              | 367.54       | -1,933.00    | 1,955.54                | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                         | 91.00           | 270.00      | 4,471.91              | 367.55       | -2,032.99    | 2,055.23                | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00                         | 91.00           | 270.00      | 4,470.16              | 367.56       | -2,132.97    | 2,154.92                | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00                         | 91.00           | 270.00      | 4,468.42              | 367.56       | -2,232.96    | 2,254.61                | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00                         | 91.00           | 270.00      | 4,466.67              | 367.57       | -2,332.94    | 2,354.30                | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                         | 91.00           | 270.00      | 4,464.93              | 367.58       | -2,432.93    | 2,453.99                | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00                         | 91.00           | 270.00      | 4,463.18              | 367.58       | -2,532.91    | 2,553.68                | 0.00                    | 0.00                   | 0.00                  |
| 7,000.00                         | 91.00           | 270.00      | 4,461.44              | 367.59       | -2,632.90    | 2,653.37                | 0.00                    | 0.00                   | 0.00                  |
| 7,100.00                         | 91.00           | 270.00      | 4,459.69              | 367.59       | -2,732.88    | 2,753.06                | 0.00                    | 0.00                   | 0.00                  |
| 7,200.00                         | 91.00           | 270.00      | 4,457.94              | 367.60       | -2,832.87    | 2,852.74                | 0.00                    | 0.00                   | 0.00                  |
| 7,300.00                         | 91.00           | 270.00      | 4,456.20              | 367.61       | -2,932.85    | 2,952.43                | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00                         | 91.00           | 270.00      | 4,454.45              | 367.61       | -3,032.84    | 3,052.12                | 0.00                    | 0.00                   | 0.00                  |
| 7,500.00                         | 91.00           | 270.00      | 4,452.71              | 367.62       | -3,132.82    | 3,151.81                | 0.00                    | 0.00                   | 0.00                  |
| 7,600.00                         | 91.00           | 270.00      | 4,450.96              | 367.62       | -3,232.80    | 3,251.50                | 0.00                    | 0.00                   | 0.00                  |
| 7,700.00                         | 91.00           | 270.00      | 4,449.22              | 367.63       | -3,332.79    | 3,351.19                | 0.00                    | 0.00                   | 0.00                  |

# Archer

## Planning Report

|           |                              |                              |                                        |
|-----------|------------------------------|------------------------------|----------------------------------------|
| Database: | EDM R5000.1 MULTI            | Local Co-ordinate Reference: | Well 5H                                |
| Company:  | COG OPERATING, LLC           | TVD Reference:               | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Project:  | Eddy County, NM              | MD Reference:                | 3682'GL+13'KB @ 3695.00usft (Planning) |
| Site:     | Passion 1 Federal Com RDK 5H | North Reference:             | Grid                                   |
| Well:     | 5H                           | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | Lateral                      |                              |                                        |
| Design:   | Plan #4                      |                              |                                        |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 7,800.00              | 91.00           | 270.00      | 4,447.47              | 367.64       | -3,432.77    | 3,450.88                | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00              | 91.00           | 270.00      | 4,445.73              | 367.64       | -3,532.76    | 3,550.57                | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00              | 91.00           | 270.00      | 4,443.98              | 367.65       | -3,632.74    | 3,650.26                | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00              | 91.00           | 270.00      | 4,442.24              | 367.66       | -3,732.73    | 3,749.95                | 0.00                    | 0.00                   | 0.00                  |
| 8,200.00              | 91.00           | 270.00      | 4,440.49              | 367.66       | -3,832.71    | 3,849.64                | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00              | 91.00           | 270.00      | 4,438.75              | 367.67       | -3,932.70    | 3,949.33                | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00              | 91.00           | 270.00      | 4,437.00              | 367.67       | -4,032.68    | 4,049.01                | 0.00                    | 0.00                   | 0.00                  |
| 8,500.00              | 91.00           | 270.00      | 4,435.25              | 367.68       | -4,132.67    | 4,148.70                | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00              | 91.00           | 270.00      | 4,433.51              | 367.69       | -4,232.65    | 4,248.39                | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00              | 91.00           | 270.00      | 4,431.76              | 367.69       | -4,332.64    | 4,348.08                | 0.00                    | 0.00                   | 0.00                  |
| 8,800.00              | 91.00           | 270.00      | 4,430.02              | 367.70       | -4,432.62    | 4,447.77                | 0.00                    | 0.00                   | 0.00                  |
| 8,900.00              | 91.00           | 270.00      | 4,428.27              | 367.70       | -4,532.61    | 4,547.46                | 0.00                    | 0.00                   | 0.00                  |
| 9,000.00              | 91.00           | 270.00      | 4,426.53              | 367.71       | -4,632.59    | 4,647.15                | 0.00                    | 0.00                   | 0.00                  |
| 9,100.00              | 91.00           | 270.00      | 4,424.78              | 367.72       | -4,732.58    | 4,746.84                | 0.00                    | 0.00                   | 0.00                  |
| 9,132.81              | 91.00           | 270.00      | 4,424.21              | 367.72       | -4,765.38    | 4,779.55                | 0.00                    | 0.00                   | 0.00                  |
| TD at 9132.81         |                 |             |                       |              |              |                         |                         |                        |                       |

| Design Targets       |                           |               |             |            |              |              |                 |                |                                 |
|----------------------|---------------------------|---------------|-------------|------------|--------------|--------------|-----------------|----------------|---------------------------------|
| Target Name          | hit/miss target           | Dip Angle (°) | Dip Dir (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude Longitude              |
| Passion 1-5H Surface | - plan hits target center | 0.00          | 0.00        | 0.00       | 0.00         | 0.00         | 677,233.90      | 596,294.50     | 32° 51' 41.06 N 104° 1' 11.04 W |
|                      | - Point                   |               |             |            |              |              |                 |                |                                 |
| Passion 1-5H PBHL p4 | - plan hits target center | 0.00          | 0.00        | 4,424.21   | 367.72       | -4,765.38    | 677,601.61      | 591,529.12     | 32° 51' 44.84 N 104° 2' 6.90 W  |
|                      | - Point                   |               |             |            |              |              |                 |                |                                 |

| Plan Annotations      |                       |                   |              |                                  |
|-----------------------|-----------------------|-------------------|--------------|----------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                          |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                  |
| 4,542.00              | 4,442.58              | 198.95            | -210.52      | Start DLS 12.35 TFO -25.89       |
| 4,794.08              | 4,500.00              | 291.21            | -434.55      | Start DLS 3.00 TFO -89.86        |
| 5,335.55              | 4,490.49              | 367.49            | -968.70      | Start 3797.26 hold at 5335.55 MD |
| 9,132.81              | 4,424.21              | 367.72            | -4,765.38    | TD at 9132.81                    |