

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
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 <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other | | 5. Lease Serial No. NMNM013814 |
| 2. Name of Operator COG OPERATING LLC | | 6. If Indian, Allottee or Tribe Name |
| Contact: KELLY J HOLLY E-Mail: kholly@concho.com | | 7. If Unit or CA/Agreement, Name and/or No. 4BB |
| 3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVE MIDLAND, TX 79701 | 3b. Phone No. (include area code) Ph: 432-685-4384 | 8. Well Name and No. TWELVE PACK FEDERAL COM 2H |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 6 T17S R30E Mer NMP NWNW 1140FNL 305FWL | | 9. API Well No. 30-015-41100 |
| | | 10. Field and Pool, or Exploratory LOCO HILLS; GLORIETA YESO |
| | | 11. County or Parish, and State 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 <input type="checkbox"/> Change to Original A |
| | <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal <input type="checkbox"/> 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 recompleat 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.)

COG Operating LLC respectfully requests permission to change the location of this well to:

SHL: 850 FNL & 130 FEL, Lot 1, Section 1, T17S, R29E
BHL: 973 FNL & 330 FEL, Lot 1, Section 6, T17S, R30E

Attached is the revised C-102, Directional Plan, Surface Use Plan, H2S Diagram, Rig Layout and Flowline.

Accepted for record
NW:OCD


Surf. OK 7/6/13 TEN - Originally approved APD COAs apply to this sundry notice.

Eng OK 5/23/13 CRW

RECEIVED
JUL 12 2013
NMOCD ARTESIA

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 14. I hereby certify that the foregoing is true and correct. | |
| Electronic Submission #208160 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by KURT SIMMONS on 05/21/2013 () | |
| Name (Printed/Typed) KELLY J HOLLY | Title PERMITTING TECH |
| Signature (Electronic Submission) | Date 05/21/2013 |

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

| | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------|
| Approved By  | Title FIELD MANAGER | Date 7/10/13 |
| 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 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-6720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Bravo Road, Aztec, NM 87410
Phone: (505) 334-6170 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | | |
|------------------------------|--|------------------------------------------------|--|------------------------------------------|----------------------|
| 1 API Number 30-015-41100 | | 2 Pool Code 96718 | | 3 Pool Name Loco Hills; Glorieta Yeso | |
| 4 Property Code 39626 | | 5 Property Name TWELVE PACK FEDERAL COM LBB | | | 6 Well Number 2H |
| 7 OGRID No 229137 | | 8 Operator Name COG OPERATING, LLC | | | 9 Elevation 3691' |

10 Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| 1 | 1 | 17-S | 29-E | | 850 | NORTH | 130 | EAST | EDDY |

11 Bottom Hole Location If Different From Surface

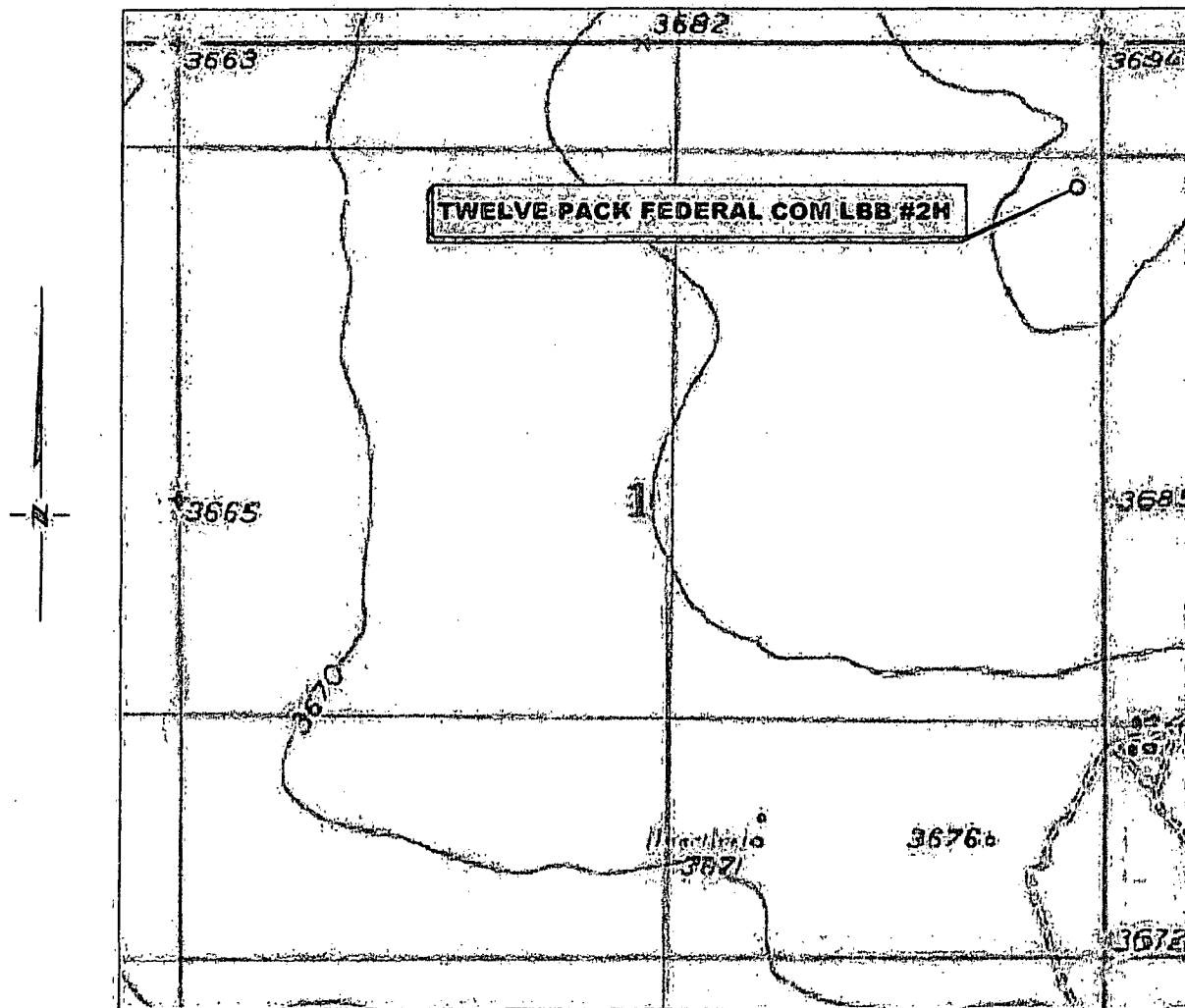
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| 1 | 6 | 17-S | 30-E | | 973 | NORTH | 330 | EAST | EDDY |

| | | | |
|------------------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres 155.95 | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|------------------------------|--------------------|-----------------------|--------------|

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

| | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>CORNER DATA NAD 27 GRID - NM EAST A: FND USGLO BC 1914 N 675322.5 - E 591200.4 B: FND USGLO BC 1914 N 677961.6 - E 591198.9 C: FND USGLO BC 1916 N 680569.9 - E 591196.5 D: FND USGLO BC 1914 N 680602.4 - E 593835.9 E: FND USGLO BC 1914 N 680602.3 - E 596475.6 F: FND BRASS CAP 1916 N 680609.7 - E 599011.1 G: FND BRASS CAP 1916 N 680616.9 - E 601650.7 H: FND GLO BC N 675356.3 - E 601669.2</p> | | <p>GEODETIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 679752.6 E 596345.1 LAT: 32.868329° N LONG: 104.019545° W BOTTOM LOCATION N 679643.0 E 601324.2</p> | | <p>CORNER DATA NAD 27 GRID - NM EAST I: FND GLO BC N 675340.1 - E 598029.3 J: FND USGLO BC 1914 N 675324.2 - E 596474.6 K: FND USGLO BC 1914 N 675326.5 - E 593844.9 L: FND USGLO BC 1914 N 677981.9 - E 596474.4</p> | | <p>OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided 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 a voluntary pooling agreement or a compulsory pooling order previously required by the division.</p> <p><i>[Signature]</i> 5-21-13 Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address</p> | |
| <p>SURVEYOR CERTIFICATION 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>4/6/13 Date of Survey Signature and Seal of Professional Surveyor <i>[Signature]</i> 19680 Certificate Number REVISED: 5/15/13</p> | | | | | | | |

LOCATION VERIFICATION MAP



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

OPERATOR: COG Operating, LLC
LEASE: Twelve Pack Federal Com LBB
WELL NO.: 2H
ELEVATION: 3691

LOCATION: 850' FNL & 130' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Red Lake SE, NM (1955)

Copyright 2012 All Rights Reserved.

| | | |
|----------|-----------|---------|
| 1 | WELL NAME | 5/15/13 |
| NO. | REVISION | DATE |
| JOB NO. | LS130109 | |
| DWG. NO. | 130109LVM | |

PROSPERITY CONSULTANTS, LLC



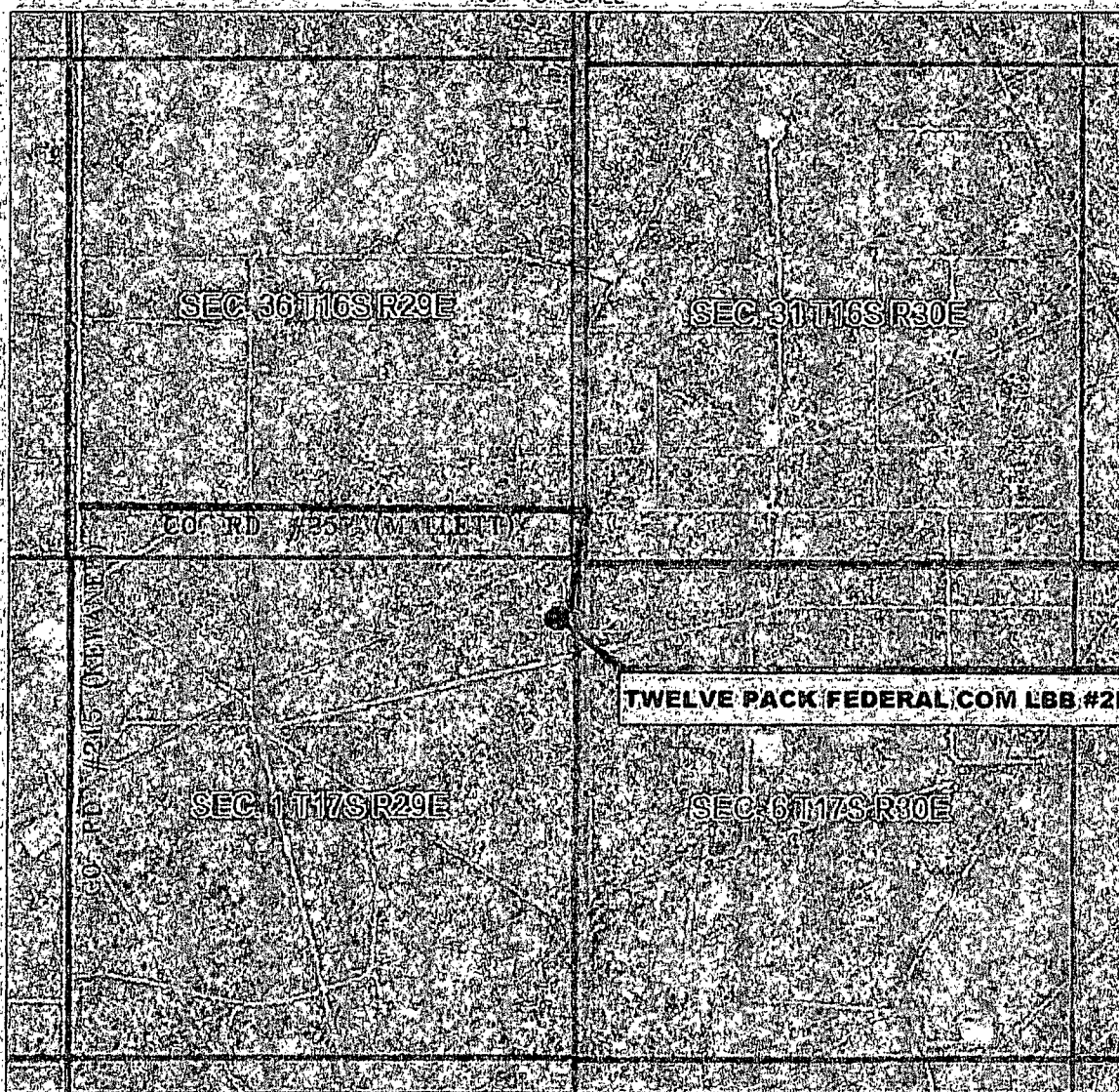
2251 Double Creek Drive, Suite 602, Round Rock, Texas, 78664

(512) 892-2087 / (512) 251-2518

SCALE: 1" = 1000'
DATE: 4/6/13
SURVEYED BY: GB
DRAWN BY: AF
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: Twelve Pack Federal Com LBB
WELL NO.: 2H

LOCATION: 850' FNL & 130' FEL
ELEVATION: 369.1'

Copyright 2012. All Rights Reserved

| | | |
|-----------|-----------|---------|
| 1. | WELL NAME | 5/15/13 |
| NO: | REVISION | DATE |
| JOB NO.: | LS130109 | |
| DWG. NO.: | 130109VM | |

PROSPERITY CONSULTANTS, LLC



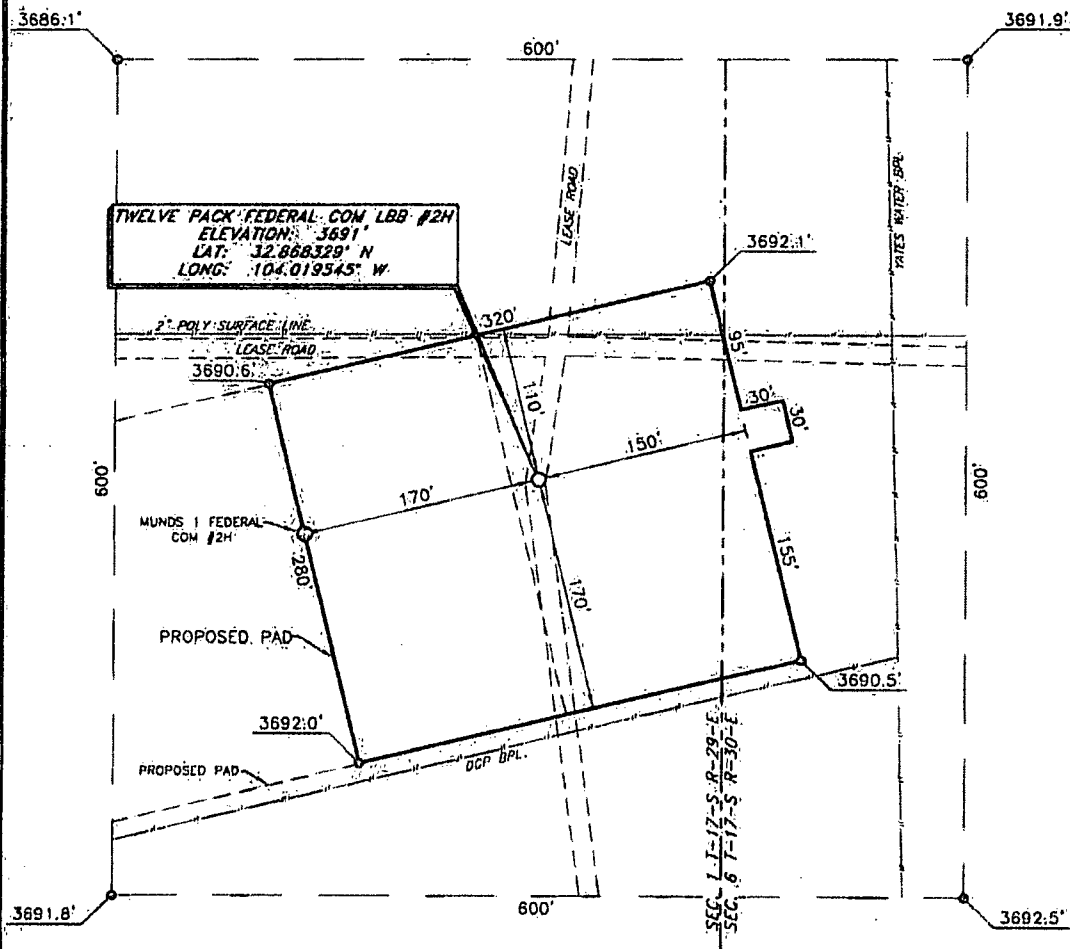
2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

o (512) 992-2087 f (512) 251-2510

| | |
|--------------|------------|
| SCALE: | 1" = 1000' |
| DATE: | 4/6/13 |
| SURVEYED BY: | GB |
| DRAWN BY: | AF |
| APPROVED BY: | LWB |
| SHEET : | 1 OF 1 |

COG OPERATING, LLC

Twelve Pack Federal Com LBB #2H
(850' FNL & 130' FEL)
Section 1, T-17-S, R-29-E,
N. M. P. M., Eddy Co., New Mexico



DIRECTIONS TO LOCATION

From the intersection of CR-215 (Keweenaw) and CR-257 (Mallott).

Go East on CR-257 approx. 1.0 mile.

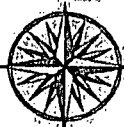
Turn right on lease road and go South approx. 0.3 mile to this location
in center of an existing lease road.

SCALE: 1" = 100'
0 50 100
BEARINGS ARE
NAD 27 ± 10' N. EAST
DISTANCES ARE
GROUND

Copyright 2012 - All Rights Reserved

| | | |
|----------|-----------|---------|
| 1. | WELL NAME | 5/15/13 |
| NO. | REVISION | DATE |
| JOB NO. | LS130109 | |
| DWG. NO. | 130109RAD | |

PROSPERITY CONSULTANTS, LLC



2251 Double Creek Drive, Suite 602, Round Rock, Texas 78684

(512) 992-2007 / (512) 251-2510

SCALE: 1" = 100'

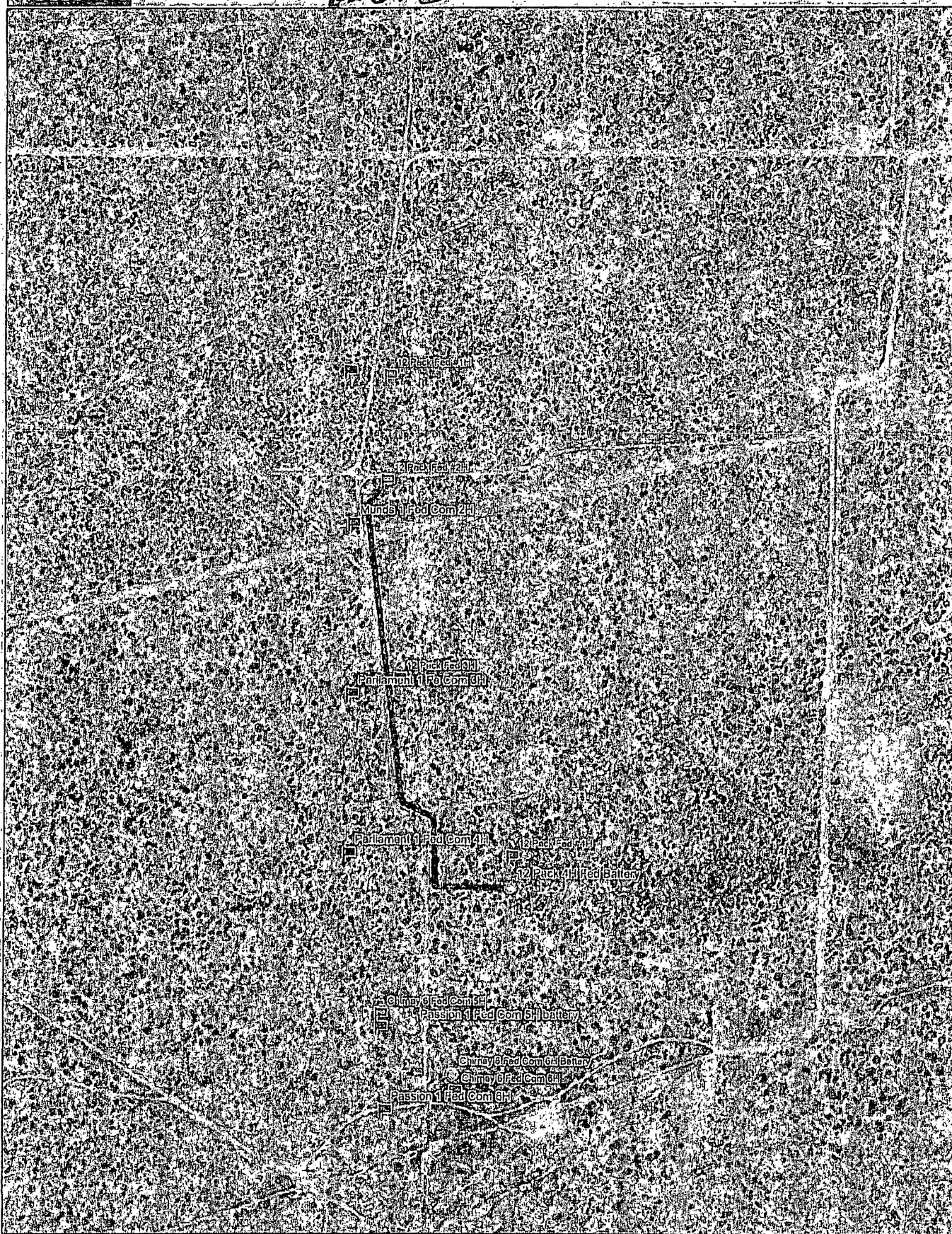
DATE: 4/6/13

SURVEYED BY: GB

DRAWN BY: AF

APPROVED BY: LWB

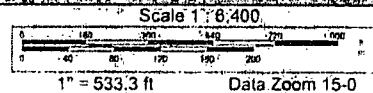
SHEET: 1 OF 1



Data use subject to license.

© DeLorme. XMap® 7.

www.delorme.com



Plan Proposal

FOR

**COG Operating, LLC
Twelve Pack Federal Com LBB #2H
Eddy Co., NM**

Design #1

Presented By:

Aaron Boger
Account Manager

Bret Wolford
Well Planner

SHL
850' FNL & 130' FEL
Sec:1-T17S-R29E
Penetration Point
861' FNL & 330' FWL
PBHL
973' FNL & 330' FEL
Sec:6-T17S-R30E

WATER



Project: Eddy County(NM27E)
Site: Sec.6-T17S-R30E
Well: Twelve Pack Federal Com LBB #2H
Wellbore: Wellbore #1
Design: Design #1
Lat: 32° 52' 5.984 N
Long: 104° 1' 10.362 W
GL: 3691.00
KB: WELL @ 3705.00usft

Archer

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSecl | Annotation |
|----------|-------|-------|---------|---------|---------|-------|-------|---------|-----------------------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | KOP / Start Build 11.00° |
| 4979.21 | 0.00 | 0.00 | 4979.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | EOC / Start 4450.92° hold at 5806.48 MD |
| 5806.48 | 91.00 | 91.26 | 5500.00 | -11.66 | 529.83 | 11.00 | 91.26 | 529.96 | TD at 10257.40 |
| 10257.40 | 91.00 | 91.26 | 5422.32 | -109.60 | 4979.00 | 0.00 | 0.00 | 4980.21 | |

WELL DETAILS: Twelve Pack Federal Com LBB #2H

| +N/-S | +E/-W | Northing | Ground Level: | Latitude | Longitude | Slot |
|-------|-------|------------|---------------|-----------------|------------------|------|
| 0.00 | 0.00 | 679752.600 | 3691.00 | 32° 52' 5.984 N | 104° 1' 10.362 W | |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|---------------------------------|---------|---------|---------|-----------------|------------------|-------|
| Twelve Pack Fed Com LBB 2H PBHL | 5422.32 | -109.60 | 4979.00 | 32° 52' 4.749 N | 104° 0' 11.988 W | Point |

PROJECT DETAILS: Eddy County(NM27E)

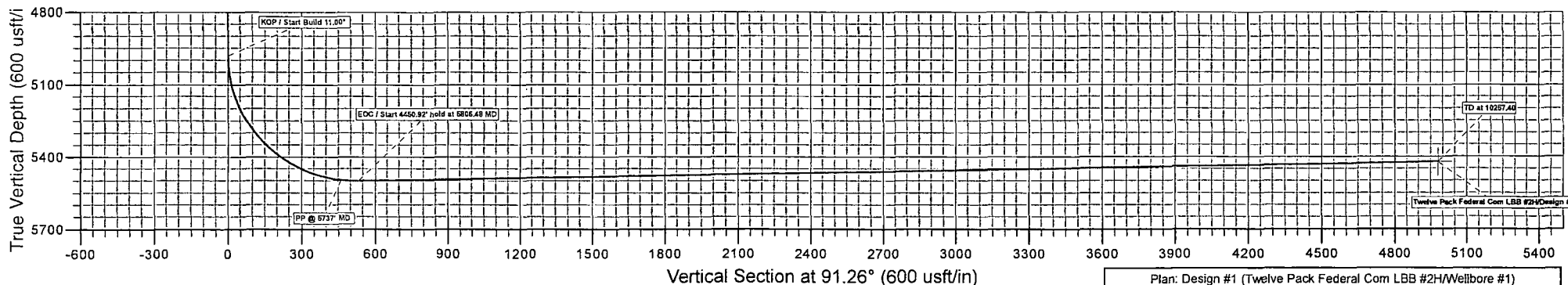
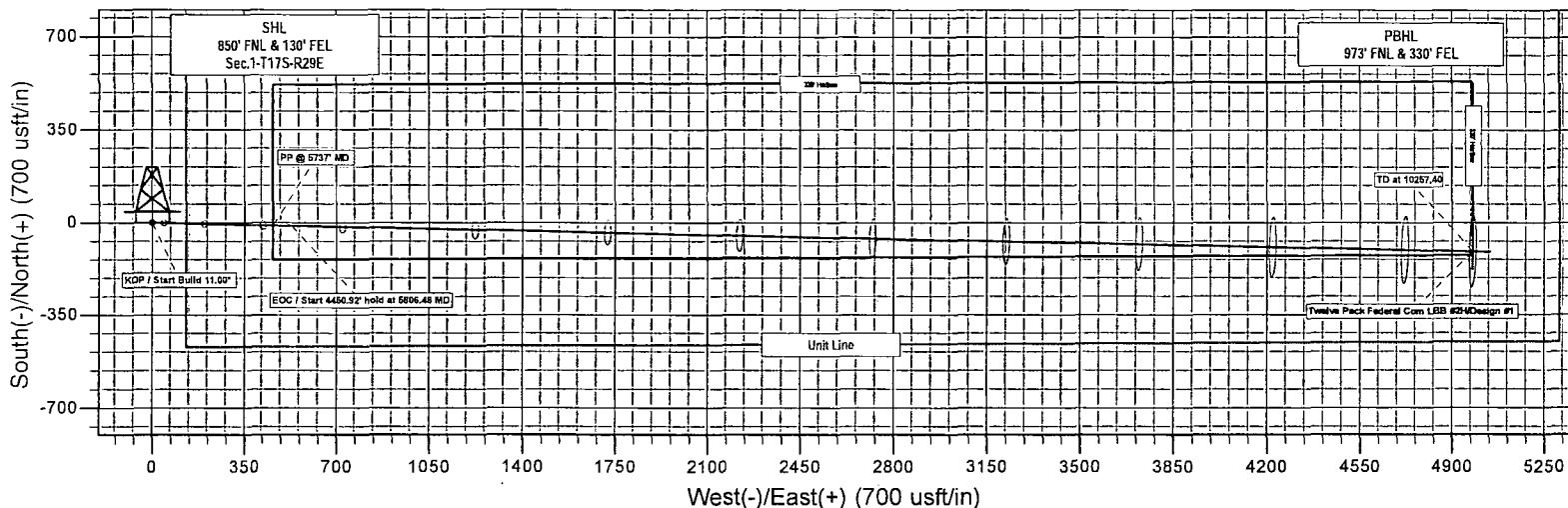
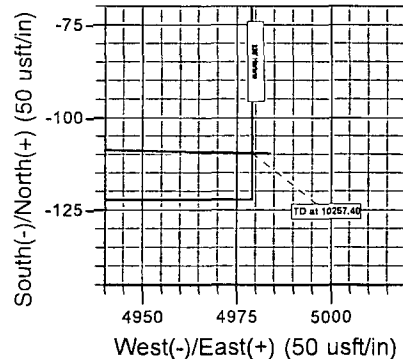
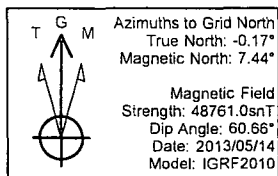
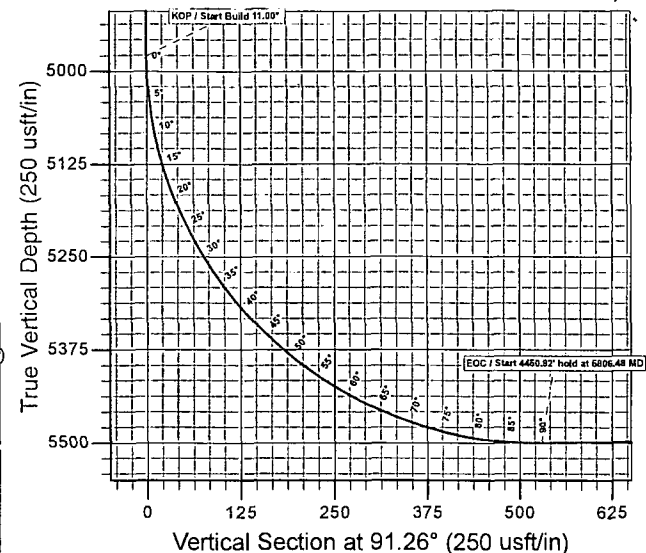
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

System Datum: Mean Sea Level

SITE DETAILS: Sec.6-T17S-R30E

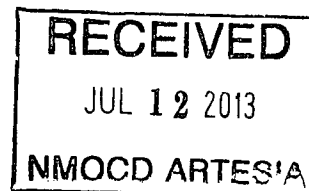
Site Centre Latitude: 32° 51' 51.534 N
Longitude: 104° 1' 5.028 W

Positional Uncertainty: 0.00
Convergence: 0.17
Local North: Grid



Plan: Design #1 (Twelve Pack Federal Com LBB #2H/Wellbore #1)

Created By: Bret Wolford Date: 16:05, May 14 2013



COG Operating, LLC

Eddy County(NM27E)

Sec.6-T17S-R30E

Twelve Pack Federal Com LBB #2H

Wellbore #1

Plan: Design #1

Standard Planning Report

14 May, 2013

Archer

| | | | |
|-----------|---------------------------------|------------------------------|--------------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well Twelve Pack Federal Com LBB #2H |
| Company: | COG Operating, LLC | TVD Reference: | WELL @ 3705.00usft |
| Project: | Eddy County (NM27E) | MD Reference: | WELL @ 3705.00usft |
| Site: | Sec 6-T17S-R30E | North Reference: | Grid |
| Well: | Twelve Pack Federal Com LBB #2H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| | | | |
|-------------|--------------------------------------|---------------|----------------|
| Project: | Eddy County (NM27E) | | |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | New Mexico East 3001 | | |

| | | | |
|-----------------------|-----------------|-------------------|------------------|
| Site: | Sec 6-T17S-R30E | | |
| Site Position: | | Northing: | 678,293.700 usft |
| From: | Map | Easting: | 596,804.400 usft |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16" |
| | | Latitude: | 32° 51' 51.534 N |
| | | Longitude: | 104° 1' 5.028 W |
| | | Grid Convergence: | 0.17 ° |

| | | | | | | |
|---------------------------------------|-----------|---------------------|-----------|------------------|---------------|------------------|
| Well: Twelve Pack Federal Com LBB #2H | | | | | | |
| Well Position | +N/-S | 1,458.90 usft | Northing: | 679,752.600 usft | Latitude: | 32° 52' 5.984 N |
| | +E/-W | -459.30 usft | Easting: | 596,345.100 usft | Longitude: | 104° 1' 10.362 W |
| Position Uncertainty | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 3,691.00 usft | |

| | | | | | |
|-----------|-------------|-------------|--------------------|------------------|------------------------|
| Wellbore: | Wellbore #1 | | | | |
| Magnetics | Model/Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 05/14/13 | 7.61 | 60.66 | 48,761 |

| | | | | |
|-------------------|------------------|--------|---------------|-----------|
| Design: | Design #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) | +N/-S | +E/-W | Direction |
| | (usft) | (usft) | (usft) | (°) |
| | 5,422.32 | 0.00 | 0.00 | 91.26 |

| | | | | | | | | | | |
|----------------|-------------|---------|----------|---------|----------|-------------|-------------|-------------|-------|---------------------|
| Plan Sections: | | | | | | | | | | |
| Measured | Inclination | Azimuth | Vertical | +N/-S | +E/-W | Dogleg | Build | Turn | TFO | Target |
| Depth | (°) | (°) | Depth | (usft) | (usft) | Rate | Rate | Rate | (°) | |
| (usft) | | | (usft) | | | (°/100usft) | (°/100usft) | (°/100usft) | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,979.21 | 0.00 | 0.00 | 4,979.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,806.48 | 91.00 | 91.26 | 5,500.00 | -11.66 | 529.83 | 11.00 | 11.00 | 0.00 | 91.26 | Twelve Pack Fed Con |
| 10,257.40 | 91.00 | 91.26 | 5,422.32 | -109.60 | 4,979.00 | 0.00 | 0.00 | 0.00 | 0.00 | Twelve Pack Fed Con |

| | | | |
|-----------|---------------------------------|------------------------------|---------------------------------------|
| Database: | EDM, 5000.1 Single User Db | Local Co-ordinate Reference: | Well: Twelve Pack Federal Com LBB #2H |
| Company: | COG Operating, LLC | TVD Reference: | WELL @ 3705.00usft |
| Project: | Eddy County(NM27E) | MD Reference: | WELL @ 3705.00usft |
| Site: | Sec 6-T17S-R30E | North Reference: | Grid |
| Well: | Twelve Pack Federal Com LBB #2H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| 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 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.00 | 0.00 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.00 | 0.00 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.00 | 0.00 | 2,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.00 | 0.00 | 2,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.00 | 0.00 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 0.00 | 0.00 | 2,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 0.00 | 0.00 | 2,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 0.00 | 0.00 | 2,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 0.00 | 0.00 | 3,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 0.00 | 0.00 | 3,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 0.00 | 0.00 | 3,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 0.00 | 0.00 | 3,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 0.00 | 0.00 | 3,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 0.00 | 0.00 | 3,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 0.00 | 0.00 | 3,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 0.00 | 0.00 | 3,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 0.00 | 0.00 | 3,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 0.00 | 0.00 | 3,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 0.00 | 0.00 | 4,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 0.00 | 0.00 | 4,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 0.00 | 0.00 | 4,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 0.00 | 0.00 | 4,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 0.00 | 0.00 | 4,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 0.00 | 0.00 | 4,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 0.00 | 0.00 | 4,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 0.00 | 0.00 | 4,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.00 | 0.00 | 4,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.00 | 0.00 | 4,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KOP // Start Build 11.00° | | | | | | | | | |
| 4,979.21 | 0.00 | 0.00 | 4,979.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 2.29 | 91.26 | 4,999.99 | -0.01 | 0.41 | 0.41 | 11.00 | 11.00 | 0.00 |
| 5,050.00 | 7.79 | 91.26 | 5,049.78 | -0.11 | 4.80 | 4.80 | 11.00 | 11.00 | 0.00 |

| | | | |
|-----------|---------------------------------|------------------------------|--------------------------------------|
| Database: | EDM5000.1 Single User Db | Local Co-ordinate Reference: | Well Twelve Pack Federal Com LBB #2H |
| Company: | COG Operating, LLC | TVD Reference: | WELL @ 3705.00usft |
| Project: | Eddy County(NM27E) | MD Reference: | WELL @ 3705.00usft |
| Site: | Sec.6-T17S-R30E | North Reference: | Grid |
| Well: | Twelve Pack Federal Com LBB #2H | Survey/Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| 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) | |
| 5,100.00 | 13.29 | 91.26 | 5,098.92 | -0.31 | 13.94 | 13.94 | 11.00 | 11.00 | 0.00 | |
| 5,150.00 | 18.79 | 91.26 | 5,146.96 | -0.61 | 27.74 | 27.75 | 11.00 | 11.00 | 0.00 | |
| 5,200.00 | 24.29 | 91.26 | 5,193.45 | -1.01 | 46.09 | 46.10 | 11.00 | 11.00 | 0.00 | |
| 5,250.00 | 29.79 | 91.26 | 5,237.97 | -1.51 | 68.80 | 68.82 | 11.00 | 11.00 | 0.00 | |
| 5,300.00 | 35.29 | 91.26 | 5,280.10 | -2.11 | 95.68 | 95.70 | 11.00 | 11.00 | 0.00 | |
| 5,350.00 | 40.79 | 91.26 | 5,319.47 | -2.78 | 126.47 | 126.50 | 11.00 | 11.00 | 0.00 | |
| 5,400.00 | 46.29 | 91.26 | 5,355.70 | -3.54 | 160.89 | 160.93 | 11.00 | 11.00 | 0.00 | |
| 5,450.00 | 51.79 | 91.26 | 5,388.47 | -4.37 | 198.62 | 198.67 | 11.00 | 11.00 | 0.00 | |
| 5,500.00 | 57.29 | 91.26 | 5,417.46 | -5.27 | 239.32 | 239.38 | 11.00 | 11.00 | 0.00 | |
| 5,550.00 | 62.79 | 91.26 | 5,442.43 | -6.22 | 282.61 | 282.68 | 11.00 | 11.00 | 0.00 | |
| 5,600.00 | 68.29 | 91.26 | 5,463.12 | -7.22 | 328.09 | 328.17 | 11.00 | 11.00 | 0.00 | |
| 5,650.00 | 73.79 | 91.26 | 5,479.36 | -8.26 | 375.35 | 375.44 | 11.00 | 11.00 | 0.00 | |
| 5,700.00 | 79.29 | 91.26 | 5,491.00 | -9.33 | 423.94 | 424.05 | 11.00 | 11.00 | 0.00 | |
| PP @ 5737 MD | | | | | | | | | | |
| 5,737.00 | 83.36 | 91.26 | 5,496.58 | -10.14 | 460.50 | 460.62 | 11.00 | 11.00 | 0.00 | |
| 5,750.00 | 84.79 | 91.26 | 5,497.92 | -10.42 | 473.43 | 473.55 | 11.00 | 11.00 | 0.00 | |
| 5,800.00 | 90.29 | 91.26 | 5,500.07 | -11.52 | 523.35 | 523.48 | 11.00 | 11.00 | 0.00 | |
| EOC / Start 4450.92' hold at 5806.48 MD | | | | | | | | | | |
| 5,806.48 | 91.00 | 91.26 | 5,500.00 | -11.66 | 529.83 | 529.96 | 11.00 | 11.00 | 0.00 | |
| 5,900.00 | 91.00 | 91.26 | 5,498.37 | -13.72 | 623.31 | 623.47 | 0.00 | 0.00 | 0.00 | |
| 6,000.00 | 91.00 | 91.26 | 5,496.62 | -15.92 | 723.28 | 723.45 | 0.00 | 0.00 | 0.00 | |
| 6,100.00 | 91.00 | 91.26 | 5,494.88 | -18.12 | 823.24 | 823.44 | 0.00 | 0.00 | 0.00 | |
| 6,200.00 | 91.00 | 91.26 | 5,493.13 | -20.32 | 923.20 | 923.42 | 0.00 | 0.00 | 0.00 | |
| 6,300.00 | 91.00 | 91.26 | 5,491.39 | -22.52 | 1,023.16 | 1,023.40 | 0.00 | 0.00 | 0.00 | |
| 6,400.00 | 91.00 | 91.26 | 5,489.64 | -24.72 | 1,123.12 | 1,123.39 | 0.00 | 0.00 | 0.00 | |
| 6,500.00 | 91.00 | 91.26 | 5,487.90 | -26.92 | 1,223.08 | 1,223.37 | 0.00 | 0.00 | 0.00 | |
| 6,600.00 | 91.00 | 91.26 | 5,486.15 | -29.12 | 1,323.04 | 1,323.36 | 0.00 | 0.00 | 0.00 | |
| 6,700.00 | 91.00 | 91.26 | 5,484.41 | -31.32 | 1,423.00 | 1,423.34 | 0.00 | 0.00 | 0.00 | |
| 6,800.00 | 91.00 | 91.26 | 5,482.66 | -33.52 | 1,522.96 | 1,523.33 | 0.00 | 0.00 | 0.00 | |
| 6,900.00 | 91.00 | 91.26 | 5,480.92 | -35.72 | 1,622.92 | 1,623.31 | 0.00 | 0.00 | 0.00 | |
| 7,000.00 | 91.00 | 91.26 | 5,479.17 | -37.92 | 1,722.88 | 1,723.30 | 0.00 | 0.00 | 0.00 | |
| 7,100.00 | 91.00 | 91.26 | 5,477.42 | -40.13 | 1,822.84 | 1,823.28 | 0.00 | 0.00 | 0.00 | |
| 7,200.00 | 91.00 | 91.26 | 5,475.68 | -42.33 | 1,922.80 | 1,923.27 | 0.00 | 0.00 | 0.00 | |
| 7,300.00 | 91.00 | 91.26 | 5,473.93 | -44.53 | 2,022.76 | 2,023.25 | 0.00 | 0.00 | 0.00 | |
| 7,400.00 | 91.00 | 91.26 | 5,472.19 | -46.73 | 2,122.72 | 2,123.24 | 0.00 | 0.00 | 0.00 | |
| 7,500.00 | 91.00 | 91.26 | 5,470.44 | -48.93 | 2,222.68 | 2,223.22 | 0.00 | 0.00 | 0.00 | |
| 7,600.00 | 91.00 | 91.26 | 5,468.70 | -51.13 | 2,322.64 | 2,323.21 | 0.00 | 0.00 | 0.00 | |
| 7,700.00 | 91.00 | 91.26 | 5,466.95 | -53.33 | 2,422.60 | 2,423.19 | 0.00 | 0.00 | 0.00 | |
| 7,800.00 | 91.00 | 91.26 | 5,465.21 | -55.53 | 2,522.57 | 2,523.18 | 0.00 | 0.00 | 0.00 | |
| 7,900.00 | 91.00 | 91.26 | 5,463.46 | -57.73 | 2,622.53 | 2,623.16 | 0.00 | 0.00 | 0.00 | |
| 8,000.00 | 91.00 | 91.26 | 5,461.72 | -59.93 | 2,722.49 | 2,723.15 | 0.00 | 0.00 | 0.00 | |
| 8,100.00 | 91.00 | 91.26 | 5,459.97 | -62.13 | 2,822.45 | 2,823.13 | 0.00 | 0.00 | 0.00 | |
| 8,200.00 | 91.00 | 91.26 | 5,458.23 | -64.33 | 2,922.41 | 2,923.12 | 0.00 | 0.00 | 0.00 | |
| 8,300.00 | 91.00 | 91.26 | 5,456.48 | -66.53 | 3,022.37 | 3,023.10 | 0.00 | 0.00 | 0.00 | |
| 8,400.00 | 91.00 | 91.26 | 5,454.74 | -68.73 | 3,122.33 | 3,123.08 | 0.00 | 0.00 | 0.00 | |
| 8,500.00 | 91.00 | 91.26 | 5,452.99 | -70.93 | 3,222.29 | 3,223.07 | 0.00 | 0.00 | 0.00 | |
| 8,600.00 | 91.00 | 91.26 | 5,451.25 | -73.13 | 3,322.25 | 3,323.05 | 0.00 | 0.00 | 0.00 | |
| 8,700.00 | 91.00 | 91.26 | 5,449.50 | -75.33 | 3,422.21 | 3,423.04 | 0.00 | 0.00 | 0.00 | |
| 8,800.00 | 91.00 | 91.26 | 5,447.76 | -77.53 | 3,522.17 | 3,523.02 | 0.00 | 0.00 | 0.00 | |
| 8,900.00 | 91.00 | 91.26 | 5,446.01 | -79.73 | 3,622.13 | 3,623.01 | 0.00 | 0.00 | 0.00 | |
| 9,000.00 | 91.00 | 91.26 | 5,444.27 | -81.93 | 3,722.09 | 3,722.99 | 0.00 | 0.00 | 0.00 | |
| 9,100.00 | 91.00 | 91.26 | 5,442.52 | -84.13 | 3,822.05 | 3,822.98 | 0.00 | 0.00 | 0.00 | |
| 9,200.00 | 91.00 | 91.26 | 5,440.77 | -86.33 | 3,922.01 | 3,922.96 | 0.00 | 0.00 | 0.00 | |
| 9,300.00 | 91.00 | 91.26 | 5,439.03 | -88.53 | 4,021.97 | 4,022.95 | 0.00 | 0.00 | 0.00 | |

| | | | |
|-----------|---------------------------------|------------------------------|---------------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well: Twelve Pack Federal Com LBB #2H |
| Company: | COG Operating, LLC | TVD Reference: | WELL @ 3705.00usft |
| Project: | Eddy County(NM27E) | MD Reference: | WELL @ 3705.00usft |
| Site: | Sec 6-T17S-R30E | North Reference: | Grid |
| Well: | Twelve Pack Federal Com LBB #2H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| 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) |
| 9,400.00 | 91.00 | 91.26 | 5,437.28 | -90.73 | 4,121.93 | 4,122.93 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 91.00 | 91.26 | 5,435.54 | -92.93 | 4,221.89 | 4,222.92 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 91.00 | 91.26 | 5,433.79 | -95.13 | 4,321.86 | 4,322.90 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 91.00 | 91.26 | 5,432.05 | -97.34 | 4,421.82 | 4,422.89 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 91.00 | 91.26 | 5,430.30 | -99.54 | 4,521.78 | 4,522.87 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 91.00 | 91.26 | 5,428.56 | -101.74 | 4,621.74 | 4,622.86 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 91.00 | 91.26 | 5,426.81 | -103.94 | 4,721.70 | 4,722.84 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 91.00 | 91.26 | 5,425.07 | -106.14 | 4,821.66 | 4,822.83 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 91.00 | 91.26 | 5,423.32 | -108.34 | 4,921.62 | 4,922.81 | 0.00 | 0.00 | 0.00 |
| TD at 10257.40 - Twelve Pack Fed Com LBB 2H PBHL | | | | | | | | | |
| 10,257.40 | 91.00 | 91.26 | 5,422.32 | -109.60 | 4,979.00 | 4,980.20 | 0.00 | 0.00 | 0.00 |

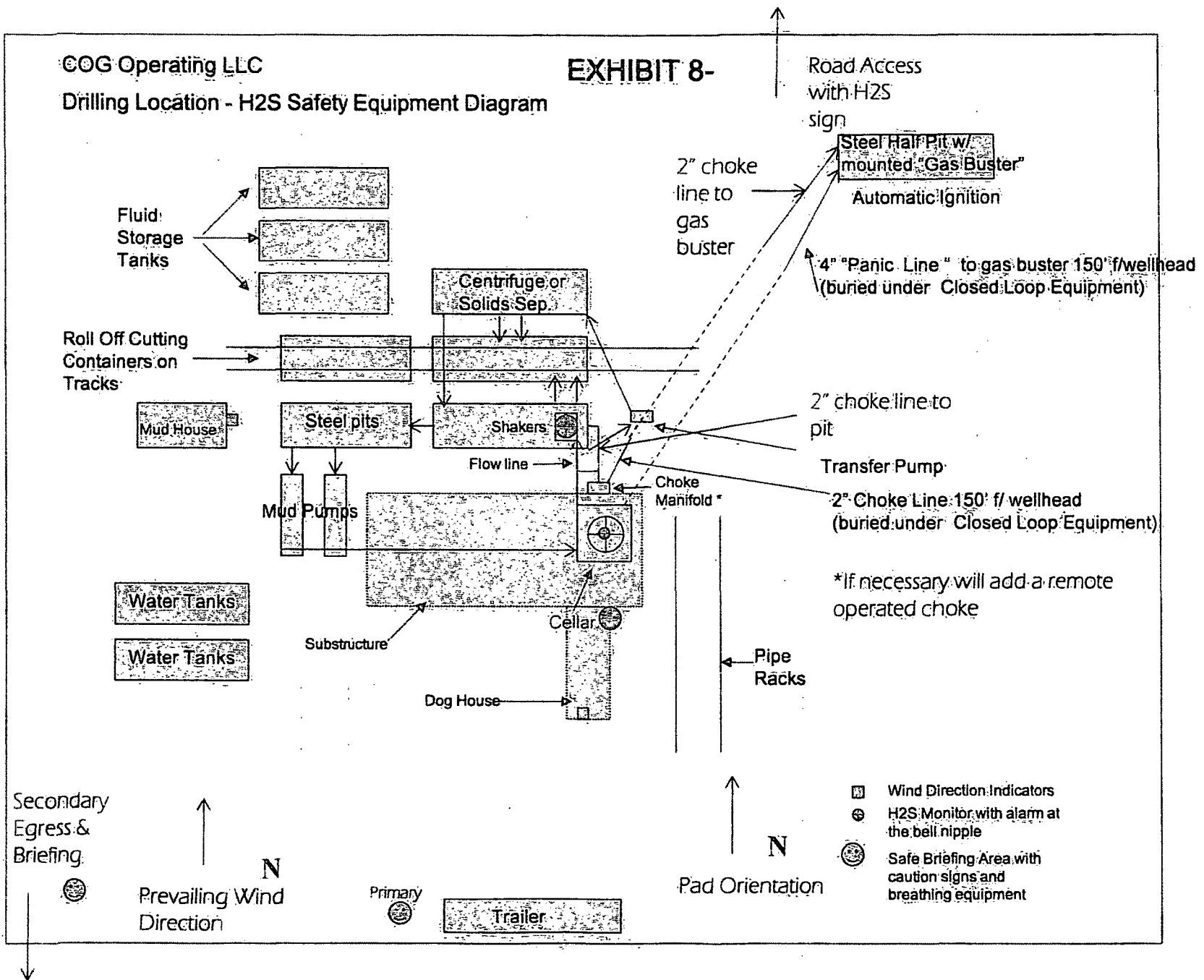
| Design Targets | | | | | | | | | |
|-----------------------|---------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|----------------------------------|
| Target Name | hit/miss/target | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude Longitude |
| Twelve Pack Fed Com L | - plan hits target center | 0.00 | 0.00 | 5,422.32 | -109.60 | 4,979.00 | 679,643.000 | 601,324.100 | 32° 52' 4.749 N 104° 0' 11.988 W |
| | - Point | | | | | | | | |

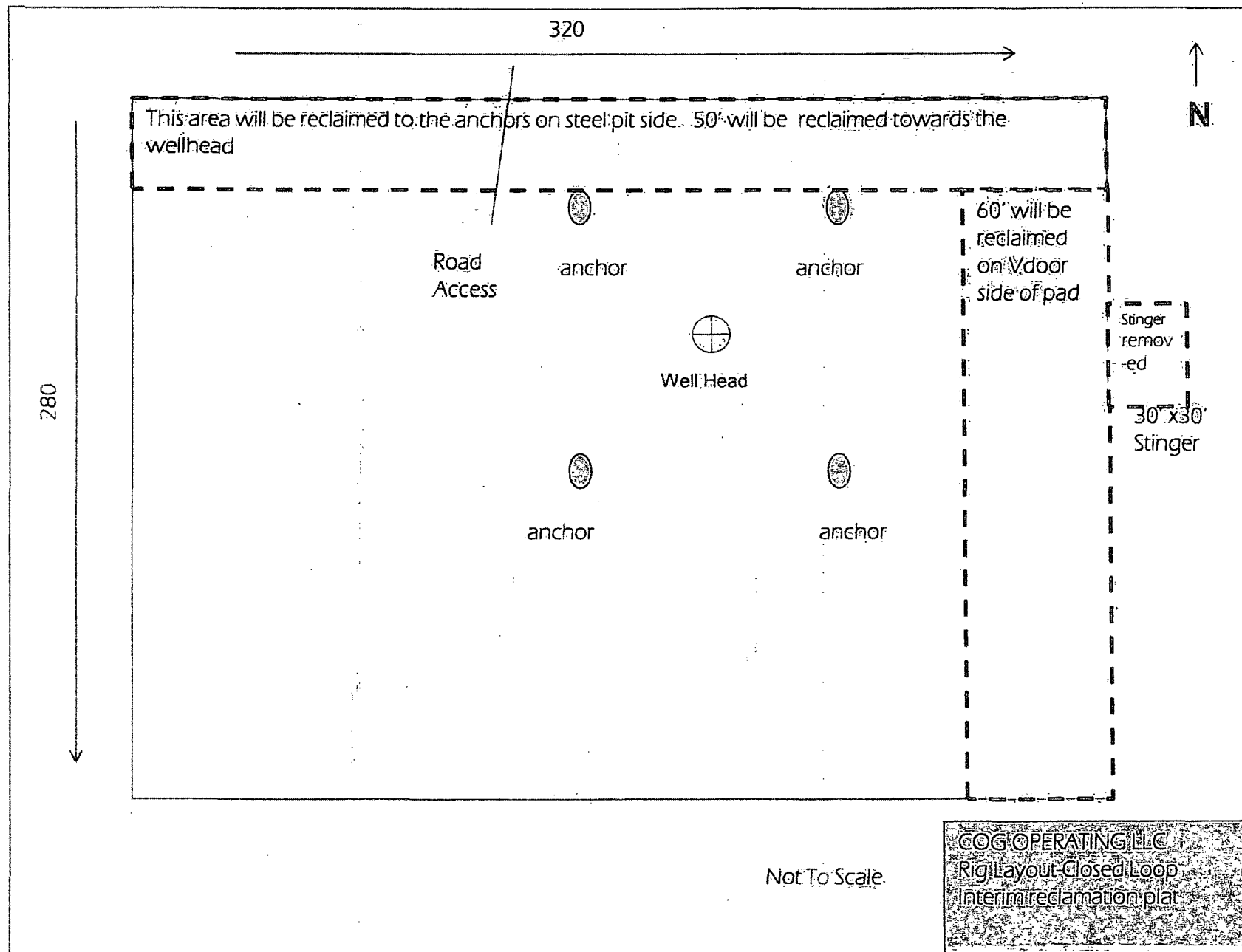
| Plan Annotations | | | | |
|--------------------------|--------------------------|-------------------|-----------------|-----------------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 4,979.21 | 4,979.21 | 0.00 | 0.00 | KOP / Start Build 11.00° |
| 5,737.00 | 5,496.58 | -10.14 | 460.50 | PP @ 5737' MD |
| 5,806.48 | 5,500.00 | -11.66 | 529.83 | EOC / Start 4450.92' hold at 5806.48 MD |
| 10,257.40 | 5,422.32 | -109.60 | 4,979.00 | TD at 10257.40 |

COG Operating LLC

Drilling Location - H2S Safety Equipment Diagram

EXHIBIT 8-





Surface Use & Operating Plan

Twelve Pack Federal Com LBB 2H

- Surface Tenant: Bogle Farms, Lewis Derrick, P O Box 441, Artesia, NM 88211.
- New Road: approx. 0'
- Flow Line: approx. 0.4 mi
- Facilities: Twelve Pack Federal Com 4H Tank Battery

Well Site Information

V Door: East

Topsoil: North

Interim Reclamation: East/North

Notes

-Shares pad with the Munds 1 Fed Com 2H

Onsite: 3/28/2013

Legion (BLM), Caden Jameson (COG), Gary Box (P.C.)

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is attached with this application. It was staked by Prosperity Consultants, LLC, Midland, TX.
- B. All roads to the location are shown in the Vicinity Map. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary. The road route to the well site is depicted in Vicinity Map. The road highlighted in the Vicinity Map will be used to access the well.
- C. Directions to location: See Vicinity Map.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. Roads will be maintained according to specifications in section 2A of this Surface Use and Operating Plan.

2. Proposed Access Road:

The Elevation Plat shows that 0' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM approved caliche pit.

3. Location of Existing Well:

The 1-mile Map shows all existing wells within a one-mile radius of this well.

As shown on this plat there are numerous wells producing from the San Andres and Yeso formations.

4. Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) Production will be sent to Twelve-Pack Federal Com #4H tank battery located Section 6, T17S, R30E, UN 5. The facility location is shown in Exhibit #1.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
 - 3) Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
 - 4) Proposed flow lines, will follow an archaeologically approved route to the Twelve-Pack Federal Com #4H tank battery located Section 6, T17S, R30E, UN 5. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately .4 miles in length. See Exhibit #1.
 - 5) It will be necessary to run electric power if this well is productive. Power will be provided by CVE and they will submit a separate plan and ROW for service to the well location.
 - 6) If the well is productive, rehabilitation plans will include the following:
 - o The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Vicinity Map. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials and Location "Turn-Over" Procedure:

Obtaining caliche: The primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well sight. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu. Yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- A. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.**
- B. An approximate 120' X 120' area is used within the proposed well site to remove caliche.**
- C. Subsoil is removed and piled alongside the 120' by 120' area within the pad site.**
- D. When caliche is found, material will be stock piled within the pad site to build the location and road.**
- E. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.**
- F. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in attached plat.**
 - In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit.

7. Methods of Handling Water Disposal:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. Human waste and grey water will need to be properly contained and disposed of. Proper disposal and elimination of waste and grey water may include but are not limited to portable septic systems and/or portable waste gathering systems (i.e. portable toilets).
- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by Prosperity Consultants, LLC, is shown in the Elevation Plat. Dimensions of the pad and pits are shown on the Rig Layout. V door direction is East. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. The Rig Layout Closed-Loop exhibit shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

10. Plans for Restoration of the Surface:

- A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete.
- B. Final Reclamation: Upon plugging and abandoning the well all caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be reseeded with a BLM approved mixture and re-vegetated as per BLM orders.

11. Surface Ownership:

- A. The surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The surface tenant is Bogle Farms, Lewis Derrick, P.O. Box 441, Artesia, NM 88211.
- C. The proposed road routes and surface location will be restored as directed by the BLM

12. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Boone Arch Services of New Mexico, LLC. Carlsbad, NM, 88220. 506 E Chapman Rd. , phone # 575.887.7667 and the results will be forwarded to your office in the near future. Otherwise, COG will be participating in the Permian Basin MOA Program.

13. Bond Coverage:

Bond Coverage is Nationwide Bond # 000215

14. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

| | |
|-------------------------------|-------------------------------|
| Jim Evans | Ray Peterson |
| Drilling Superintendent | Drilling Manager |
| COG Operating LLC | COG Operating LLC |
| One Concho Center | One Concho Center |
| 600 W. Illinois | 600 W. Illinois |
| Midland, TX 79701 | Midland, TX 79701 |
| Phone (432) 685-4304 (office) | Phone (432) 685-4304 (office) |
| (432) 221-0346 (business) | (432) 818-2254 (business) |

Surface Use Plan
COG Operating, LLC
Twelve Pack Federal Com LLB 2H
SL: 850' FNL & 130' FEL UN 1
Section 1, T-17-S, R-29-E
BHL: 973' FNL & 330' FEL
Section 6, T-17-S, R-30-E
Eddy County, New Mexico

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or COG Operating, LLC, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 1st day of May, 2013.

Signed: _____

Carl Bird

Printed Name: Carl Bird

Position: Drilling Engineer

Address: One Concho Center, 600 W. Illinois, Midland, Texas 79701

Telephone: (432) 683-7443

Field Representative (if not above signatory): Same

E-mail: cbird@concho.com