

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.*5. Lease Serial No.
NMNM013814

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.
TWELVE PACK FEDERAL COM 1H

2. Name of Operator

COG OPERATING LLC

Contact: KELLY J HOLLY

E-Mail: kholly@concho.com

9. API Well No.

30-015-41099

3a. Address

ONE CONCHO CENTER 600 W ILLINOIS AVE
MIDLAND, TX 79701

3b. Phone No. (include area code)

Ph: 432-685-4384

10. Field and Pool, or Exploratory
LOCO HILLS; GLORIETA YESO

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 6 T17S R30E Mer NMP NWNW 330FNL 230FWL

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	Change to Original A PD
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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 and name of this well to:

Twelve Pack Federal Com LBB #1H

SHL: 330 FNL & 20 FEL, Lot 1, Section 1, T17S, R29E

BHL: 330 FNL & 330 FEL, Lot 1, Section 6, T17S, R29E

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

surf. OK 7/5/13 TEN - Originally approved APD COA's apply to this Sundry Notice

Eng OK 5/23/13 CRW

Accepted for record

RECEIVED

JUL 12 2013

NMOCD ARTESIA

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

Electronic Submission #207788 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 05/17/2013

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 **

Disposal
 1625 N. French Dr., Hobbs, NM 88240
 Phone: (505) 393-6161 Fax: (505) 393-0720
 District II
 811 S. First St., Artesia, NM 88210
 Phone: (505) 748-1283 Fax: (505) 748-9720
 District III
 1000 Rio Brazos Blvd., Aztec, NM 87410
 Phone: (505) 334-6178 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 32-015-41099	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 1H
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING, LLC	⁹ Elevation 3692'

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		330	NORTH	20	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

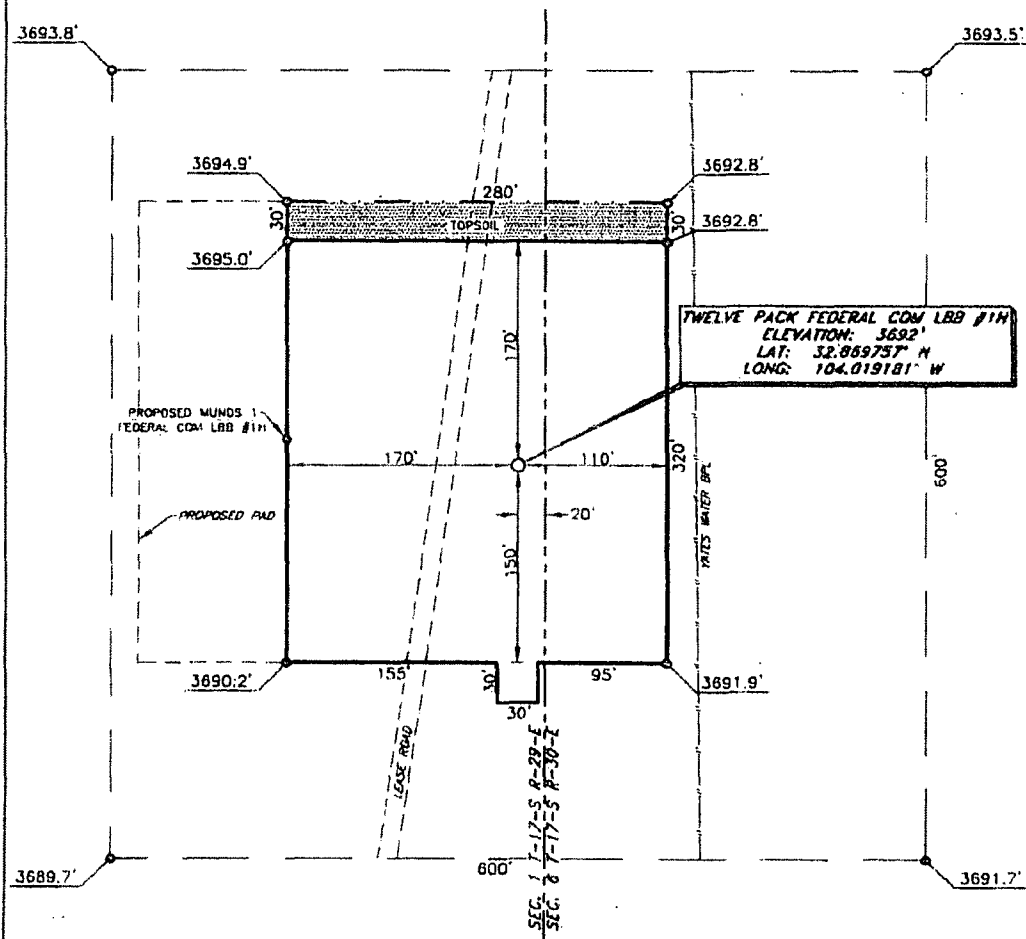
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	6	17-S	30-E		330	NORTH	330	EAST	EDDY

¹² Dedicated Acres 155.95	¹³ Joint or Int'l 	¹⁴ Consolidation Code LOT 1	¹⁵ Order No.
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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 680580.9 - E 591196.5 D: FND USGLO BC 1914 N 680602.4 - E 583835.9 E: FND USGLO BC 1914 N 680602.3 - E 596475.6 F: FND BRASS CAP 1916 N 680509.7 - 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 680272.3 E 596455.4 LAT: 32.869757° N LONG: 104.019181° W BOTTOM LOCATION N 680285.1 E 601322.0</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 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 heretofore entered by the division.</p> <p><i>[Signature]</i> 5-14-13 Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address</p>
<p>CORNER DATA NAD 27 GRID - NM EAST I: FND GLO BC N 675340.1 - E 599029.3 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 677961.9 - E 596474.4</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>4/2/13 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor 19680 Certificate Number REVISED: 5/2/13</p>

Twelve Pack Federal Com LBB #1H
(330' FNL & 20' FEL)
Section 1, T-17-S, R-29-E,
N. M. P. M., Eddy Co., New Mexico



From CR-215 (Kewanee) and CR-257 (Mallett).
Go East on CR-257 approx. 1.0 mile.
Turn right on lease road and go South approx. 0.2 mile.
The location is approx. 54 feet East of the lease road.

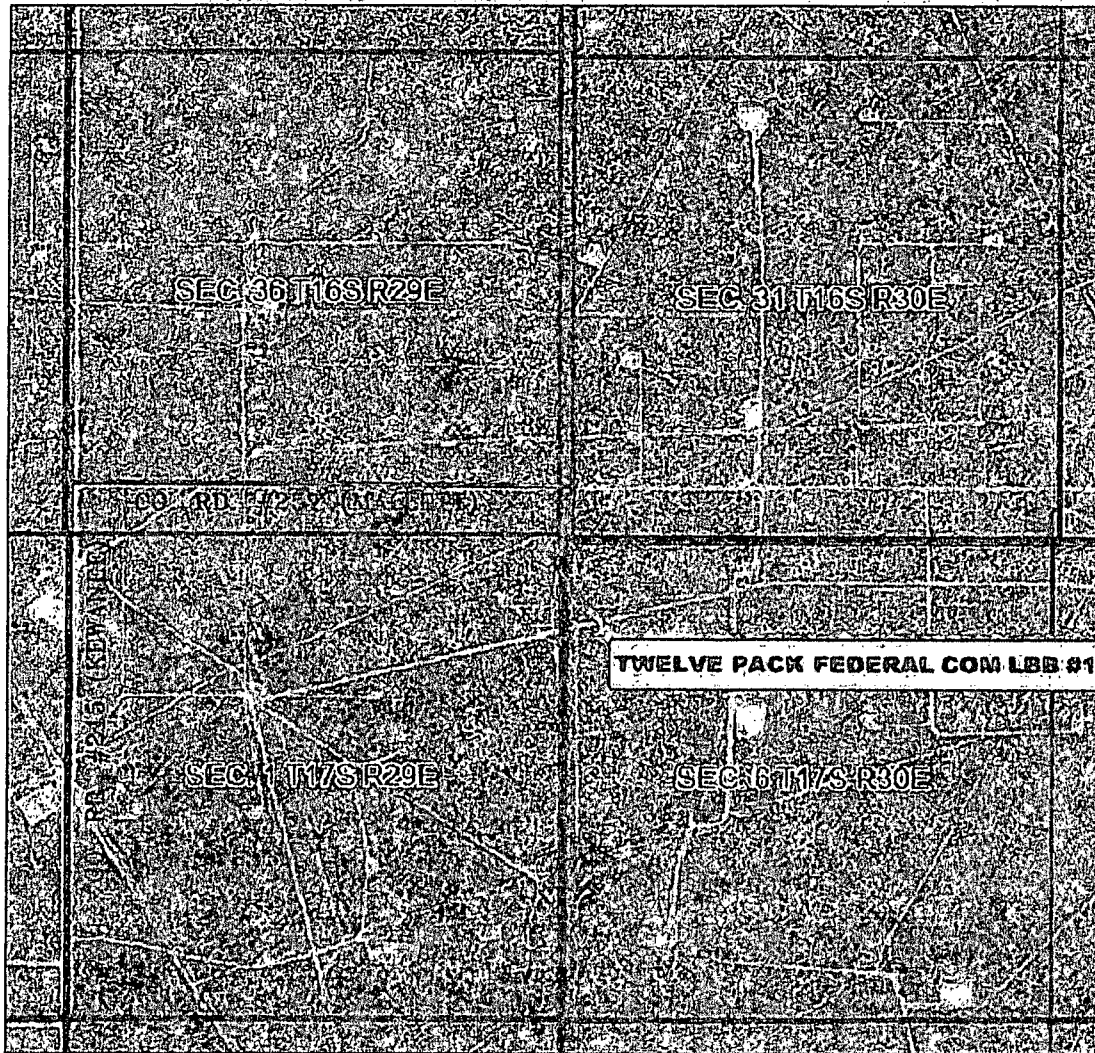


1	WELL NAME	5/2/13
NO.	REVISION	DATE
JOB NO.: LS130108		
DWG. NO.: 130108PAD		

SCALE: 1" = 100'
DATE: 4/2/13
SURVEYED BY: GB/SM
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.: 1H

LOCATION: 330' FNL & 20' FEL
ELEVATION: 3692'

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1	WELL NAME	5/2/13
NO.	REVISION	DATE
JOB NO.: LS130108		
DWG. NO.: 130108VM		

PROSPERITY CONSULTANTS, LLC

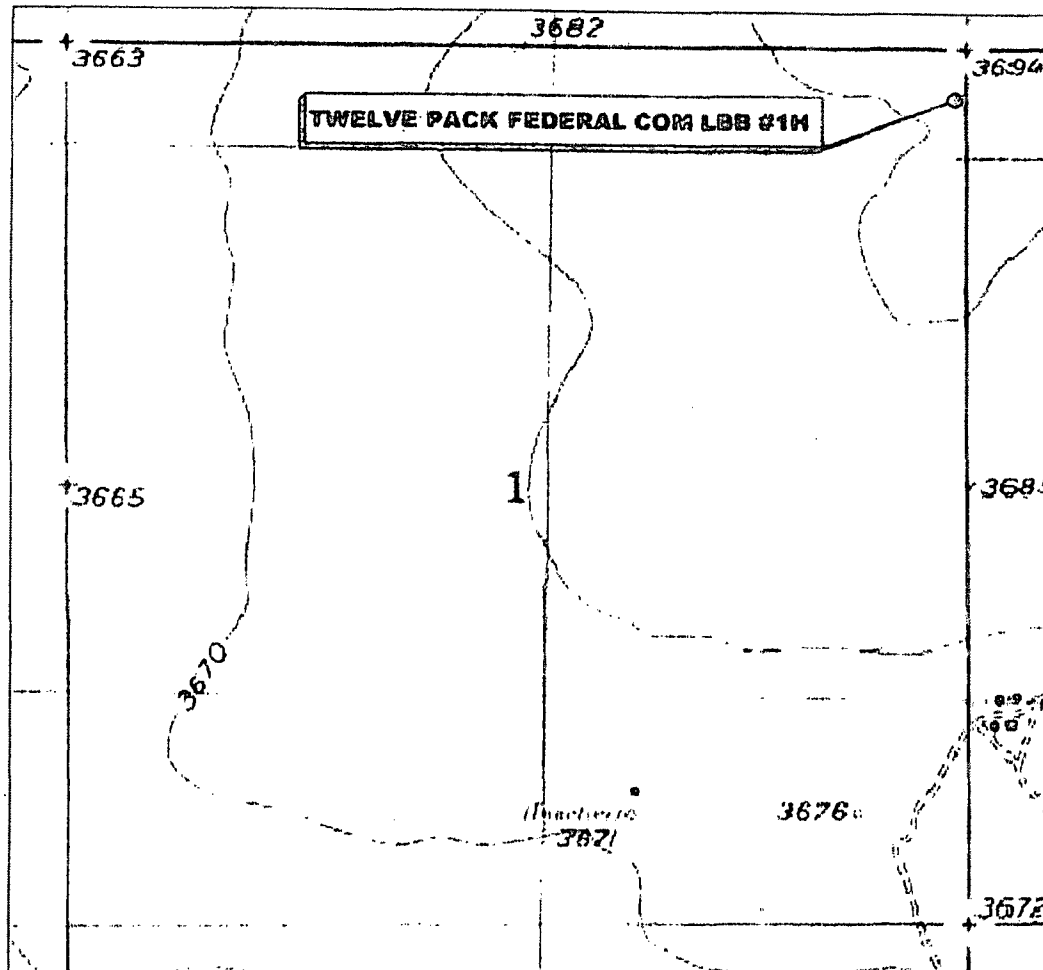


2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

o (512) 902-2087 f (512) 251-2518

SCALE: 1" = 1000'
DATE: 4/2/13
SURVEYED BY: GB/SM
DRAWN BY: AF
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

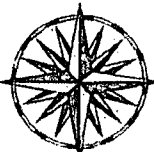
OPERATOR: COG Operating, LLC
LEASE: Twelve Pack Federal Com LBB
WELL NO.: 1H
ELEVATION: 3692'

LOCATION: 330' FNL & 20' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Red Lake SE, NM (1955)

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1	WELL NAME	5/2/13
NO.	REVISION	DATE
JOB NO.:	LS130108	
DWG. NO.:	130108LVM	

PROSPERITY CONSULTANTS, LLC



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

o (512) 902-2087 f (512) 251-2518

SCALE:	1" = 1000'
DATE:	4/2/13
SURVEYED BY:	GB/SM
DRAWN BY:	AF
APPROVED BY:	LWB
SHEET :	1 OF 1

Plan Proposal

FOR

COG Operating, LLC
Twelve Pack Federal Com LBB #1H
Eddy Co., NM

Design #1

Presented By:

Aaron Boger
Account Manager

Bret Wolford
Well Planner

SHL
330' FNL & 20' FEL
Sec.1-T17S-R29E
Penetration Point
343' FNL & 330' FWL
PBHL
330' FNL & 330' FEL
Sec.6-T17S-R30E

WATER



Project: Eddy County(NM27E)
Site: Sec.6-T17S-R30E
Well: Twelve Pack Federal Com LBB #1H
Wellbore: Wellbore #1
Design: Design #1
Lat: 32° 52' 11.123 N
Long: 104° 1' 9.050 W
GL: 3692.00
KB: WELL @ 3706.00usft

Archer

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4979.21	0.00	0.00	4979.21	0.00	0.00	0.00	0.00	0.00	KOP / Start Build 11.00°
5806.48	91.00	92.00	5500.00	-18.50	529.64	11.00	92.00	529.58	EOC / Start DLS 3.00° TFO -89.98
5888.08	91.00	89.55	5498.58	-19.60	611.21	3.00	-89.98	611.15	EOT / Start 4256.07° hold at 5888.08 MD
10144.15	91.00	89.55	5424.30	13.70	4866.50	0.00	0.00	4866.52	TD at 10144.15

WELL DETAILS: Twelve Pack Federal Com LBB #1H

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude	Slot
0.00	0.00	680272.300	3692.00	596455.400	32° 52' 11.123 N	104° 1' 9.050 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Twelve Pack Fed Com LBB 1H PBHL	5424.30	13.70	4866.50	32° 52' 11.112 N	104° 0' 11.991 W	Point

PROJECT DETAILS: Eddy County(NM27E)

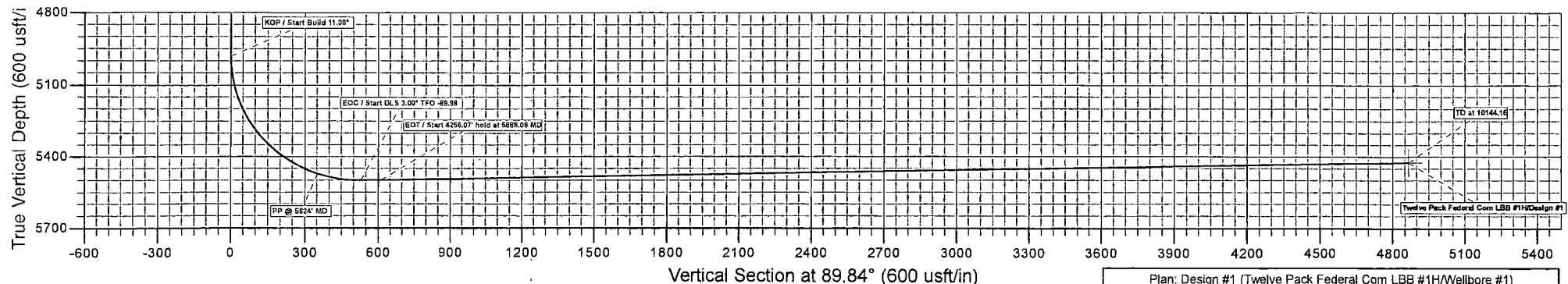
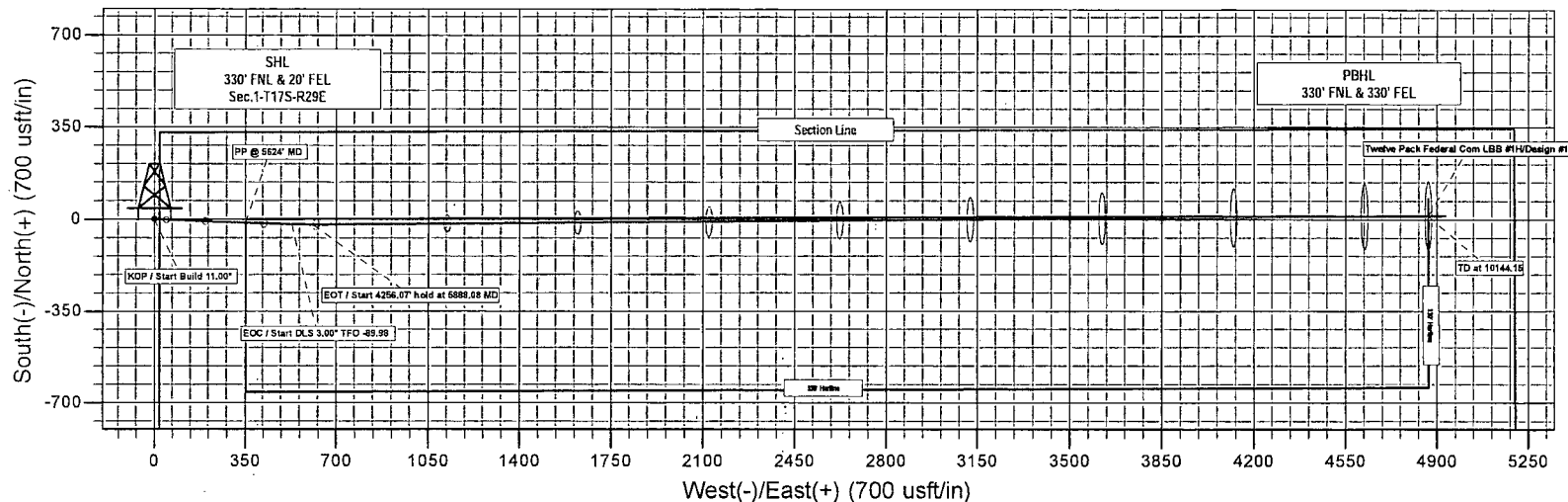
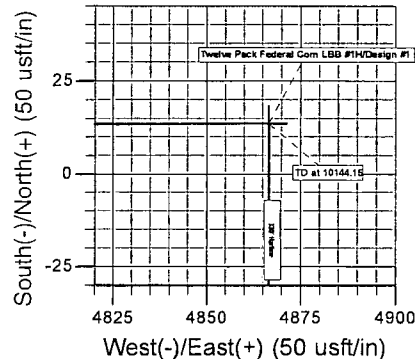
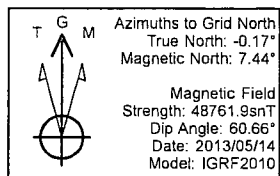
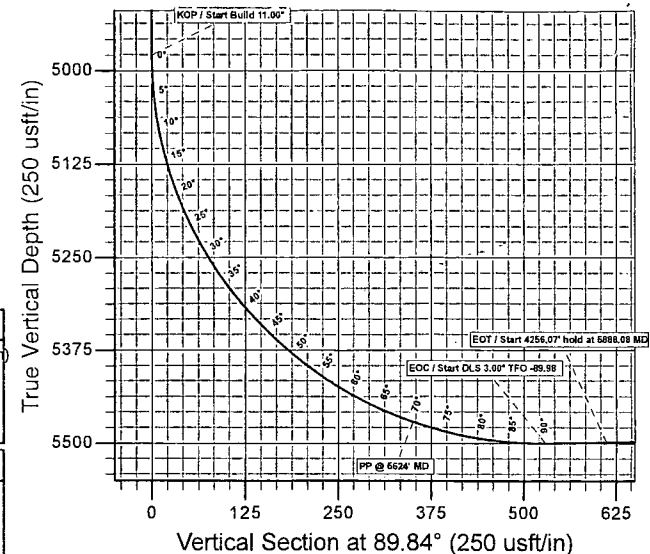
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

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 #1H/Wellbore #1)

Created By: Bret Wolford Date: 15:34, May 14 2013



COG Operating, LLC

Eddy County(NM27E)

Sec.6-T17S-R30E

Twelve Pack Federal Com LBB #1H

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 #1H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3706.00usft
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 3706.00usft
Site:	Sec 6-T17S-R30E	North Reference:	Grid
Well:	Twelve Pack Federal Com LBB #1H	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' 9.028 W
		Grid Convergence:	0.17 °

Well:	Twelve Pack Federal Com LBB #1H					
Well Position	+N/-S	1,978.60 usft	Northing:	680,272.300 usft	Latitude:	32° 52' 11.123 N
	+E/-W	-349.00 usft	Easting:	596,455.400 usft	Longitude:	104° 1' 9.050 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,692.00 usft

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	05/14/13	7.61	60.66	48,762

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)	(°)
	5,424.30	0.00	0.00	89.84

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	92.00	5,500.00	-18.50	529.64	11.00	11.00	0.00	92.00	
5,888.08	91.00	89.55	5,498.58	-19.60	611.21	3.00	0.00	-3.00	-89.98	Twelve Pack Fed Con
10,144.15	91.00	89.55	5,424.30	13.70	4,866.50	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 #1H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3706.00usft
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 3706.00usft
Site:	Sec 6-T17S-R30E	North Reference:	Grid
Well:	Twelve Pack Federal Com LBB #1H	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	92.00	4,999.99	-0.01	0.41	0.41	11.00	11.00	0.00	
5,050.00	7.79	92.00	5,049.78	-0.17	4.80	4.80	11.00	11.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Twelve Pack Federal Com LBB #1H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3706.00usft
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 3706.00usft
Site:	Sec 6-T17S-R30E	North Reference:	Grid
Well:	Twelve Pack Federal Com LBB #1H	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	92.00	5,098.92	-0.49	13.93	13.93	11.00	11.00	0.00
5,150.00	18.79	92.00	5,146.96	-0.97	27.73	27.73	11.00	11.00	0.00
5,200.00	24.29	92.00	5,193.45	-1.61	46.07	46.07	11.00	11.00	0.00
5,250.00	29.79	92.00	5,237.97	-2.40	68.78	68.77	11.00	11.00	0.00
5,300.00	35.29	92.00	5,280.10	-3.34	95.64	95.63	11.00	11.00	0.00
5,350.00	40.79	92.00	5,319.47	-4.41	126.42	126.41	11.00	11.00	0.00
5,400.00	46.29	92.00	5,355.70	-5.62	160.83	160.81	11.00	11.00	0.00
5,450.00	51.79	92.00	5,388.47	-6.93	198.55	198.53	11.00	11.00	0.00
5,500.00	57.29	92.00	5,417.46	-8.35	239.23	239.21	11.00	11.00	0.00
5,550.00	62.79	92.00	5,442.43	-9.87	282.50	282.48	11.00	11.00	0.00
5,600.00	68.29	92.00	5,463.12	-11.45	327.97	327.94	11.00	11.00	0.00
PP @ 5624 MD									
5,624.00	70.93	92.00	5,471.49	-12.24	350.45	350.42	11.00	11.00	0.00
5,650.00	73.79	92.00	5,479.36	-13.10	375.21	375.17	11.00	11.00	0.00
5,700.00	79.29	92.00	5,491.00	-14.80	423.79	423.75	11.00	11.00	0.00
5,750.00	84.79	92.00	5,497.92	-16.53	473.26	473.21	11.00	11.00	0.00
5,800.00	90.29	92.00	5,500.07	-18.27	523.16	523.11	11.00	11.00	0.00
EOC / Start DLS 3.00 TFO 389.98									
5,806.48	91.00	92.00	5,500.00	-18.50	529.64	529.58	11.00	11.00	0.00
EOT / Start 4256.07 hold at 5888.08 MD									
5,888.08	91.00	89.55	5,498.58	-19.60	611.21	611.15	3.00	0.00	-3.00
5,900.00	91.00	89.55	5,498.37	-19.51	623.13	623.07	0.00	0.00	0.00
6,000.00	91.00	89.55	5,496.62	-18.72	723.11	723.05	0.00	0.00	0.00
6,100.00	91.00	89.55	5,494.88	-17.94	823.09	823.04	0.00	0.00	0.00
6,200.00	91.00	89.55	5,493.13	-17.16	923.07	923.02	0.00	0.00	0.00
6,300.00	91.00	89.55	5,491.39	-16.38	1,023.06	1,023.01	0.00	0.00	0.00
6,400.00	91.00	89.55	5,489.64	-15.59	1,123.04	1,122.99	0.00	0.00	0.00
6,500.00	91.00	89.55	5,487.90	-14.81	1,223.02	1,222.97	0.00	0.00	0.00
6,600.00	91.00	89.55	5,486.15	-14.03	1,323.00	1,322.96	0.00	0.00	0.00
6,700.00	91.00	89.55	5,484.41	-13.25	1,422.98	1,422.94	0.00	0.00	0.00
6,800.00	91.00	89.55	5,482.66	-12.47	1,522.96	1,522.92	0.00	0.00	0.00
6,900.00	91.00	89.55	5,480.92	-11.68	1,622.95	1,622.91	0.00	0.00	0.00
7,000.00	91.00	89.55	5,479.17	-10.90	1,722.93	1,722.89	0.00	0.00	0.00
7,100.00	91.00	89.55	5,477.42	-10.12	1,822.91	1,822.87	0.00	0.00	0.00
7,200.00	91.00	89.55	5,475.68	-9.34	1,922.89	1,922.86	0.00	0.00	0.00
7,300.00	91.00	89.55	5,473.93	-8.55	2,022.87	2,022.84	0.00	0.00	0.00
7,400.00	91.00	89.55	5,472.19	-7.77	2,122.85	2,122.82	0.00	0.00	0.00
7,500.00	91.00	89.55	5,470.44	-6.99	2,222.84	2,222.81	0.00	0.00	0.00
7,600.00	91.00	89.55	5,468.70	-6.21	2,322.82	2,322.79	0.00	0.00	0.00
7,700.00	91.00	89.55	5,466.95	-5.42	2,422.80	2,422.77	0.00	0.00	0.00
7,800.00	91.00	89.55	5,465.21	-4.64	2,522.78	2,522.76	0.00	0.00	0.00
7,900.00	91.00	89.55	5,463.46	-3.86	2,622.76	2,622.74	0.00	0.00	0.00
8,000.00	91.00	89.55	5,461.72	-3.08	2,722.74	2,722.73	0.00	0.00	0.00
8,100.00	91.00	89.55	5,459.97	-2.29	2,822.73	2,822.71	0.00	0.00	0.00
8,200.00	91.00	89.55	5,458.23	-1.51	2,922.71	2,922.69	0.00	0.00	0.00
8,300.00	91.00	89.55	5,456.48	-0.73	3,022.69	3,022.68	0.00	0.00	0.00
8,400.00	91.00	89.55	5,454.74	0.05	3,122.67	3,122.66	0.00	0.00	0.00
8,500.00	91.00	89.55	5,452.99	0.84	3,222.65	3,222.64	0.00	0.00	0.00
8,600.00	91.00	89.55	5,451.25	1.62	3,322.63	3,322.63	0.00	0.00	0.00
8,700.00	91.00	89.55	5,449.50	2.40	3,422.62	3,422.61	0.00	0.00	0.00
8,800.00	91.00	89.55	5,447.76	3.18	3,522.60	3,522.59	0.00	0.00	0.00
8,900.00	91.00	89.55	5,446.01	3.97	3,622.58	3,622.58	0.00	0.00	0.00
9,000.00	91.00	89.55	5,444.27	4.75	3,722.56	3,722.56	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Twelve Pack Federal Com LBB #1H
Company:	CQG Operating, LLC	TVD Reference:	WELL @ 3706.00usft
Project:	Eddy County(NM27E)	MD Reference:	WELL @ 3706.00usft
Site:	Sec.6-T17S-R30E	North Reference:	Grid
Well:	Twelve Pack Federal Com LBB #1H	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)	
9,100.00	91.00	89.55	5,442.52	5.53	3,822.54	3,822.54	0.00	0.00	0.00	
9,200.00	91.00	89.55	5,440.77	6.31	3,922.53	3,922.53	0.00	0.00	0.00	
9,300.00	91.00	89.55	5,439.03	7.10	4,022.51	4,022.51	0.00	0.00	0.00	
9,400.00	91.00	89.55	5,437.28	7.88	4,122.49	4,122.49	0.00	0.00	0.00	
9,500.00	91.00	89.55	5,435.54	8.66	4,222.47	4,222.48	0.00	0.00	0.00	
9,600.00	91.00	89.55	5,433.79	9.44	4,322.45	4,322.46	0.00	0.00	0.00	
9,700.00	91.00	89.55	5,432.05	10.22	4,422.43	4,422.44	0.00	0.00	0.00	
9,800.00	91.00	89.55	5,430.30	11.01	4,522.42	4,522.43	0.00	0.00	0.00	
9,900.00	91.00	89.55	5,428.56	11.79	4,622.40	4,622.41	0.00	0.00	0.00	
10,000.00	91.00	89.55	5,426.81	12.57	4,722.38	4,722.40	0.00	0.00	0.00	
10,100.00	91.00	89.55	5,425.07	13.35	4,822.36	4,822.38	0.00	0.00	0.00	
TD at 10144.15 - Twelve Pack Fed Com LBB 1H PBHL										
10,144.15	91.00	89.55	5,424.30	13.70	4,866.50	4,866.52	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 - Point	0.00	0.00	5,424.30	13.70	4,866.50	680,286.000	601,321.900	32° 52' 11.112 N	104° 0' 11.991 W

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°	
5,624.00	5,471.49	-12.24	350.45	PP @ 5624' MD	
5,806.48	5,500.00	-18.50	529.64	EOC / Start DLS 3.00° TFO -89.98	
5,888.08	5,498.58	-19.60	611.21	EOT / Start 4256.07' hold at 5888.08 MD	
10,144.15	5,424.30	13.70	4,866.50	TD at 10144.15	

Surface Use & Operating Plan

Twelve Pack Federal Com LBB 1H

- Surface Tenant: Bogle Farms, Lewis Derrick, P O Box 441, Artesia, NM 88211.
- New Road: approx. 0'
- Flow Line: approx. 0.5 mi
- Facilities: Twelve Pack Federal Com 4H Tank Battery

Well Site Information

V Door: South

Topsoil: North

Interim Reclamation: East/North

Notes

-Shares pad with the Munds 1 Fed Com 1H

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 .5 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 South. 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

Surface Use Plan
COG Operating, LLC
Twelve Pack Federal Com LLB 1H
SL: 330' FNL & 20' FEL UN 1
Section 1, T-17-S, R-29-E
BHL: 330' FNL & 330' FEL
Section 6, T-17-S, R-30-E
Eddy County, New Mexico

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 1H
SL: 330' FNL & 20' FEL *UN 1*
Section 1, T-17-S, R-29-E
BHL: 330' 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

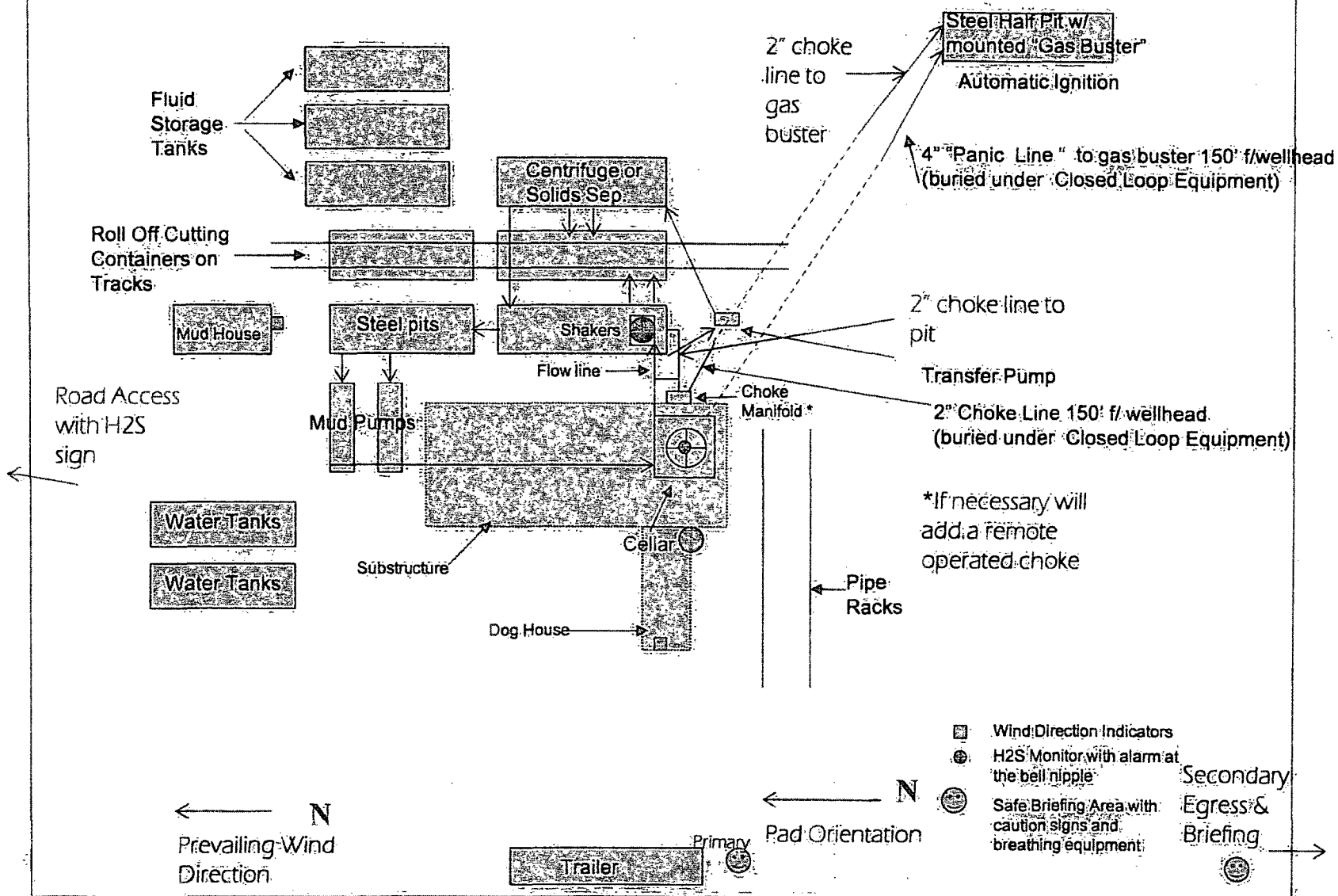
Field Representative (if not above signatory): Same

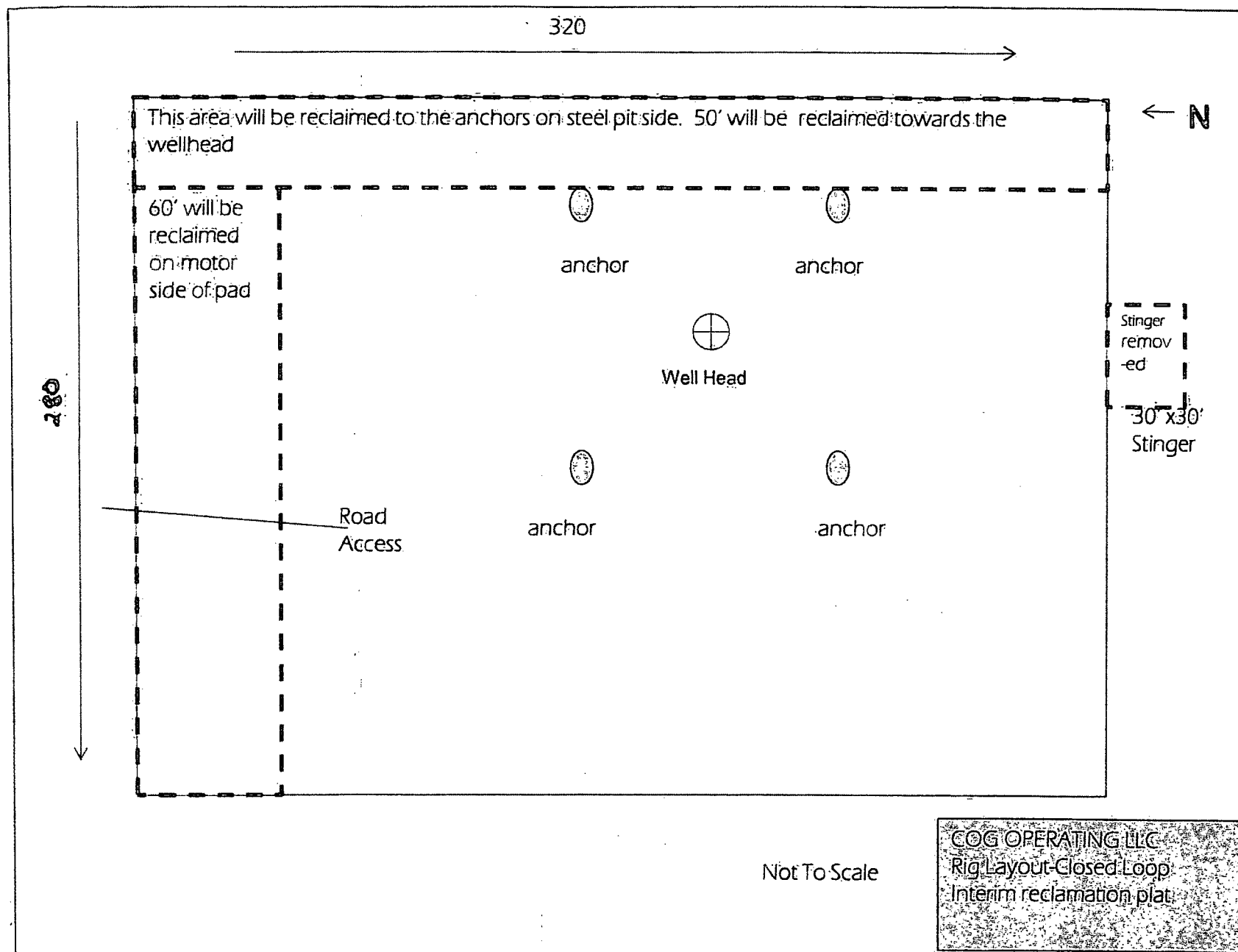
E-mail: cbird@concho.com

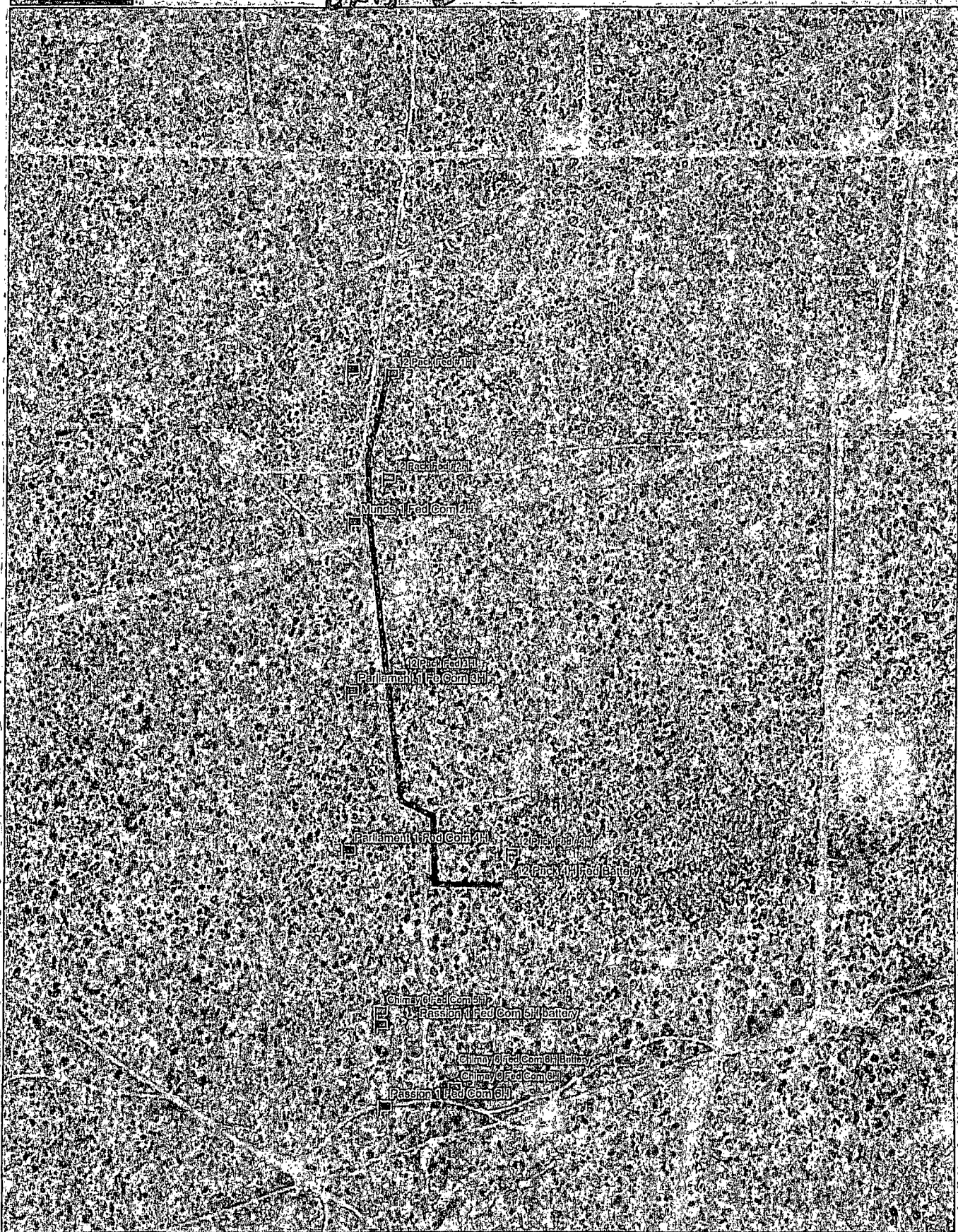
COG Operating LLC

EXHIBIT 8

Drilling Location - H2S Safety Equipment Diagram







Data use subject to license.

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www.delorme.com

MN (7.6°E)

